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NATIONAL ASSOCIATION
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COST ACCOUNTANTS
YEAR BOOK
1933

PROCEEDINGS OF THE
FOURTEENTH INTERNATIONAL COST CONFERENCE

Waldorf-Astoria Hotel
New York, New York
June 12, 13, 14, 15, 1933



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SESSION I

THE RECONSTRUCTION OF THE BALANCE SHEET

TUESDAY MORNING, JUNE 13, 1933

WILLIAM F. MARSH, Resident Partner, Lybrand, Ross Brothers
and Montgomery, Pittsburgh, Pennsylvania, *Chairman*

Presiding Officer at all sessions, President HARRY A. BULLIS, Vice
President, General Mills, Inc., Minneapolis, Minnesota

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Providence, Rhode Island

ARTHUR H. CARTER was born in Hillsboro, Kansas, on January 6, 1884, and was graduated from the United States Military Academy at West Point in 1905, as a Second Lieutenant of Field Artillery. He served in the Field Artillery of the U. S. Army until 1914, when he resigned to enter business. He reentered the Army at the beginning of the World War and served as Major, Lieutenant Colonel, and Colonel of Ordnance, and as Lieutenant Colonel and Colonel of Field Artillery. He was awarded the Distinguished Service Medal "for exceptionally meritorious and conspicuous service" as Commandant of the Field Artillery Central Officers' Training School. He now holds a commission as Colonel in the Field Artillery Reserve. Immediately after the War, Colonel Carter joined Haskins & Sells, of which he is now the Senior Partner. He is a Certified Public Accountant in twenty-one states, a member of eight state societies as well as of the National Association of Cost Accountants, American Institute of Accountants, American Society of Certified Public Accountants, American Association of University Instructors in Accounting and the Accountants' Club of America, Inc. Colonel Carter served as a National Director of the National Association of Cost Accountants from 1928 to 1930, has been Vice President from 1930 until the present time and is our President Elect for the coming year. He has served as Vice President of the American Institute of Accountants, a member of the Executive Committee and of the Council of the American Institute of Accountants; and is a Past President of the New York State Society of Certified Public Accountants, and of the Accountants Club of America, Inc.

MERVYN B. WALSH'S business career began in the engineering department of Western Electric Company, after which he entered public accounting. While engaged in the public practice of accountancy, he did considerable cost work. He left the public accounting field to associate with Thomas A. Edison, Inc. After five years of private work, he again entered the public accounting field and organized a firm now known as Walsh & Company, of Detroit, Michigan. In 1922, he founded Walsh Institute of Accountancy, a professional school specializing in teaching accountancy and business administration. Mr. Walsh was President of the Detroit Chapter of the N. A. C. A. for the year 1924-25. Since 1931 he has been a Director of the National Association of Cost Accountants. He is a member of the American Society of Certified Public Accountants, and of the American Association of University Instructors in Accounting. The year 1925-26 he was President of the Michigan Association of Certified Public Accountants. Mr. Walsh is also a special lecturer on accounting subjects at the University of Michigan.

THE RECONSTRUCTION OF THE BALANCE SHEET

The opening session of the Fourteenth International Cost Conference of the National Association of Cost Accountants convened on Tuesday morning, June 13, 1933, at ten o'clock in the Grand Ballroom of the Waldorf-Astoria Hotel, New York City, Mr. Harry A. Bullis, Vice President, General Mills, Inc., Minneapolis, Minn., President of the Association, presiding.

PRESIDENT BULLIS: It is a pleasure to extend to you a hearty welcome to the Fourteenth International Cost Conference of the National Association of Cost Accountants. This meeting may be compared to a family gathering—an intimate group of men and women of the same calling, who are striving to improve the methods of accounting used in industry and government, men and women who are taking an active part in the movement for better management in both private and public business.

These days require from everyone the best that he or she has to offer. Modern business insists upon brain power and moral courage in its executives. Brain power is required in order to study clearly and accurately current operating problems in the light of the latest information available, and moral courage is necessary in order to act in accordance with the conclusions reached in the study of these problems.

The National Association of Cost Accountants—this family to which I have referred—has a high privilege in serving industry and government. There is, as never before, a need for standardization of accounting practices and especially for more uniform cost accounting. For example, among the difficulties which will be encountered in the administration of the Agricultural Adjustment Act, the Securities Act, and the new National Industrial Recovery Act, which provide for government supervision, regulation, and coordination of entire industries, are those pertaining to accounting. It will certainly be found in many cases that accounting practices are not sufficiently uniform and efficient to fit into the set-up of government-controlled planning and industry-controlled management contemplated by these acts. A major item in stabilizing prices should be uniform cost accounting, but it must not be so uniform and stereotyped that it may be changed only with great difficulty in the

future. There is often a tendency to use as a standard the fairly good system or method of the past, and not the very best, which should be the goal for future attainment. Here, as in everything else, the rule of reason must be observed.

There have been many changes in every direction recently, and men are now looking for new guide posts. It is only necessary to glance at the newspapers to appreciate the accuracy of the statement: "The one changeless law of business is the law of constant change." Nothing really is ever settled in business; anything that looks as though it might be settled is in great danger of becoming fossilized. No business, plan, or system, can ever be so perfect that no improvements can be made upon it.

Fifty years ago people would have been thought to be foolish if they had talked about transmitting music and voices through the air or of many of the other subsequent developments of science. In the light of the knowledge of that day, things now of commonplace interest were not considered reasonable.

We, as accountants, should be able to point out where changes should be made, rather than follow along after they occur. As conditions in business change, the accounting records must be changed to keep abreast of the times. An accounting system must be adapted to the conditions it seeks to control, or it fails to perform its most important function.

In this day when leadership is at such a premium, men are not measured by what they have, but by what they are. True leadership, like charity, begins at home—by establishing a firm leadership over ourselves. This is the time for us as members of the National Association of Cost Accountants to become real leaders, to develop a willingness to serve, to give our time and energy freely, and to show our faith and confidence in the future. The personal record which each of us makes these days shows us up for the man or woman we really are.

Now that business has turned the corner, we can again expect the best and move forward with intelligent action. Our real assets are our thoughts and we should think in terms of confidence and courage. The program this forenoon is typical of the work the National Association of Cost Accountants is doing for American industry.

With these few remarks, I shall ask Harry D. Anderson, Syracuse Resident Manager of Scovell, Wellington and Company, a Certified Public Accountant, one of our National Directors, and Chairman of the Program Committee, to take the chair.

CHAIRMAN ANDERSON: Mr. President, Members and Friends: I have not yet discovered why the National Board should pick me as chairman of the technical sessions of this Convention.

I have made some inquiries as to why and how former chairmen were picked and I found various influences affected the choice. Some of the chairmen they picked because of their great technical knowledge of costs, production methods, and things of that sort. I find, too, that one year they chose him because of his ability at amateur theatricals and to put on skits. However, this year, obviously they picked a chairman on sheer displacement.

Then I learned that sometimes there are complaints registered about the technical sessions, and that I was to absorb all kicks made about this Convention. So, if there is anything you do not like, if you do not like Harry Whitney at the organ, if you do not like the singing, if you do not like the speakers, if you do not like the acoustics, if you do not like the subjects or the temperature, if you do not like me—I am supposed to take the brunt of all the complaints.

To offset all that, they gave me a very wonderful committee and certainly you will agree that they have done a most excellent piece of work. I want to take this opportunity to thank not only the committee consisting of Bill Marsh of Pittsburgh, Charlie Cornell of Boston and Harry Howell of Providence, for this program about to be presented, but also the speakers, and all of you who will take part in these sessions.

Strangely enough, this program was set last November and we had no thought of a general theme for this Convention. We planned a series of practical subjects that would be appealing to a cross section of our membership, subjects no member of our Association could fail to benefit from. There is food for thought in every one of them and they are intensely practical.

With the contemplated passage of the so-called National Industrial Recovery Act, we have the theme for this Convention dropped right into our midst with the talk that Col. Nelson B. Gaskill is to give us tomorrow afternoon.

Every subject on this program carries a message which bears directly on the function of the cost accountant in relation to this National Industrial Recovery Act.

The subjects for today's sessions are, "The Reconstruction of the Balance Sheet" and "Pricing for Profit," and the Chairman is Bill Marsh of Pittsburgh. Bill is the fellow whose picture is shown in the middle of page 4 of today's issue of the Convention Daily

News. I am not going to read the description of Bill. Bill is a real fellow. He is the Resident Partner at Pittsburgh of Lybrand, Ross Brothers and Montgomery, and a Past President of our Pittsburgh Chapter. He has held numerous N. A. C. A. offices and is now a National Director. He is also prominent in the affairs of the American Institute of Accountants and of the Pennsylvania Institute of Certified Public Accountants.

Bill Marsh will carry on from this point with today's sessions. Mr. Marsh.

CHAIRMAN MARSH: Thank you, Mr. Anderson.

Mr. President, Members of the National Association of Cost Accountants, and Guests: I had hoped that Harry Anderson would not draw your attention to that photograph. Since I have seen it, I have been expecting the police, so if this session is interrupted, you will know the reason.

There will be two papers this morning. The general subject is "The Reconstruction of the Balance Sheet." The first paper deals with the adjustment of capital assets and capital structure in view of present-day conditions. This was a particularly important subject when we chose it last fall, and I think it is even more so now because of the effect that inflation may have, and probably will have, on valuations.

The first speaker, Colonel Arthur H. Carter, really needs no introduction. Colonel Carter is Senior Partner of Haskins & Sells, Certified Public Accountants, and is very active in accounting circles. For the past three years he has been President of the New York State Society of Certified Public Accountants. Colonel Carter has been a member of the National Association of Cost Accountants and a member of the National Board for a number of years. During that time he has served the National Board as Director of Lectures, Director of Chapters, and has been Vice President for the past three years.

Colonel Carter has been nominated for the Presidency for the coming year. It is an honor to present Colonel Carter.

ADJUSTMENT OF CAPITAL ASSETS AND STRUCTURE IN VIEW OF PRESENT-DAY CONDITIONS

Arthur H. Carter

Partner, Haskins & Sells, New York, New York

I THINK the remarks of your President in introducing the Chairman of this meeting are worthy of your most considerate thought. If you will pardon me, Mr. President, I should like to say that I

think the developments of today have placed this organization in a position of greater importance than it has ever occupied before.

As Bill Marsh has said, when this topic I am to speak on was chosen, conditions were different from those that exist today. I must remind you that it is reported in the newspapers this morning the Industrial Bill is to be voted on at four o'clock this afternoon. Events are changing so fast that, frankly, I have been in a blue funk. I am very much in a position which corresponds to an old negro spiritual, "Standin' in the Need of Prayer."

During the last three years desirable changes in the capital structures of corporations have been brought to light.

Short-term borrowings for long-term corporate purposes, and investment of excess earnings during prosperous years in additional production facilities, inventories, and securities have presented major difficulties to many companies.

Some enterprises have been embarrassed because sufficient working capital had not been provided to carry them through a long period of economic reverses, and too large a proportion of such working capital as they possessed had become frozen in inventories and receivables.

Top-heavy investment in fixed assets became a serious burden to operations during the period of declining business, and extraordinary obsolescence brought about by new developments added even greater problems during such times.

Many corporations made commendable progress in solving the difficulties encountered during the period of decline. Inventories and expenses were reduced drastically, receivables liquidated, overhead curtailed, and any activities not considered essential to profitable results discontinued.

A further move, which became quite popular with many corporations during the two years preceding May of this year, involved the adjustment of capital assets to lower price levels in order to relieve operations from what then appeared to be excessive depreciation charges during the period of rapid decline in business. This movement continued during the early months of this year but seems to have ceased for the time being, at least. In view of the fact that this movement was so widespread and involved so many serious economic and accounting principles, this form of adjustment became of major importance and has received considerable attention.

The fact that many companies reduced their capital structures and made adjustments in their capital asset values during the first six

months of 1932 was in itself of sufficient importance to cause considerable comment in the press and much discussion in accounting circles as to the proper reflection of such action in the accounts of the company.

The reasons advanced for reducing the valuations of capital assets have centered primarily on the desire to reduce charges against operations for depreciation in order to meet competition where values of capital assets of a competitor have been acquired at lower costs or have been written down to lower levels.

In other words, competitive conditions in an industry have been the impelling factor in the consideration of such write-downs.

There are, of course, instances where companies have been actuated in making such adjustments by a desire to preserve their earned surplus by relieving earnings of excessive depreciation charges arising from what was regarded as high cost of depreciable assets. This condition, however, can again be related to the results of a period of declining prices and unreasonably low volume of business.

In other instances, we have found the integrity of surplus questioned through a shrinkage in value of current assets and currently marketable investments, necessitating an adjustment of such assets to a lower value.

Arguments for and against adjustments of this character were advanced and accounting views as to their proper treatment in the accounts differed widely, although, after prolonged consideration of the problems involved, accounting opinions became better reconciled.

During the period of declining prices some contended that we had reached the bottom and that asset values should be adjusted to new levels. Others contended that there was no merit in recognizing such abnormal levels.

A third group advanced the theory that the results of the past three years demonstrated that production capacity was far beyond the future needs and that some part of plant and equipment must be permanently retired in order that the remainder might have a fair chance to demonstrate its productive value.

During this period when business declined from a prosperous to a disastrous level, extraordinary obsolescence of plants and equipment became more and more conspicuous and troublesome because the highest degree of technical development was encouraged as a major weapon to defeat high costs and extravagant processes.

These developments caused many organizations to recognize a

major decline in value of fixed assets which, as a result of such decline, had been rendered inefficient.

Several interesting accounting questions are involved in the proper reflection in the accounts of revaluations of assets in order to present the facts clearly, respect the rights of investors and creditors, and to abide by the laws involved.

Where sufficient surplus was not available, against which such adjustments might have been charged, it was provided in practically every instance by a reduction of the par or stated value of the common capital stock. Such action necessitated concurrence of the stockholders.

Where securities, senior to the common stock, were outstanding any proposed reduction of outstanding capital demanded consideration of the rights of senior securities and creditors. Furthermore, legal obstacles, in the corporation laws involved, were encountered in some instances. Even where sufficient surplus was available to absorb the write-downs, and no adjustment of outstanding capital was called for, write-downs of fixed assets demanded cautious procedure.

The three general classifications of surplus with which we are concerned in dealing with extraordinary adjustments of asset values are Revaluation Surplus, Capital—including Paid-In—and Earned Surplus.

In respect to revaluation surplus resulting from an upward valuation of assets, there can be no question as to the propriety of charging to such surplus an equal downward adjustment of the same property.

The major accounting question—and I might say economic as well—involved in a downward adjustment of assets focuses on capital and earned surplus and a decision must be reached as to whether or not earned surplus must first be wholly absorbed before any of the write-down may be a charge against capital surplus. On this point accounting opinion has differed.

Many theoretical views have been propounded, but in the last analysis common sense, fair dealing, a wholesome respect for the rights of all concerned, and a full and intelligent statement of the facts have in most instances prevailed.

I am assuming, for purposes of this discussion, that accountants and corporate officials are agreed on the principle that no charges should be made against surplus or reserves of any character which properly rest against current operations and that in normal process items affecting earned surplus reach that account through income.

It seems logical to me, as a matter of equity and principle, that the owners of an enterprise may, in fact, without disposing of the property, recognize an extraordinary and permanent loss in value of a fixed asset and absorb such loss through an adjustment of outstanding capital.

The capital account, in some part, expresses the value of the asset and if, in their wisdom, owners can definitely determine that such asset no longer has such value to the enterprise they may recognize it by adjusting the capital account.

No one can deny that the brewers of these United States suffered what then appeared to be a permanent loss when the Prohibition Amendment was passed, or that their plant and equipment have increased in value during the last few months. This, of course, is an extreme case, but it supports the logic of recognizing extraordinary conditions.

A recent study of the 1932 annual reports of 71 companies which wrote down their fixed capital assets during the year by a charge against capital surplus indicates that such capital surplus was created by reducing the stated or par value of the capital stock.

Forty-six of the 71 companies— notwithstanding the fact that they had an earned surplus—adopted the method of charging the entire write-down against capital surplus, indicating that they did not accept the theory that earned surplus must be exhausted before any charge shall be made against capital surplus for a write-down of fixed assets.

Twenty-five, or more than one third of these companies, had no earned surplus against which such charges could be made, as they showed a deficit at the end of the year before any adjustment of their fixed assets was made and absorbed this deficit by charging it against capital surplus.

No doubt there were some cases where the write-down was charged entirely against earned surplus rather than capital surplus, but I think it is safe to say that such cases are much in the minority.

The changes in the economic situation since April have presented many problems of an entirely new nature to business, and this short period of time has demonstrated how quickly basic values and ideas may change.

Assets of every description, and from whatever original base they may be calculated, are subject to the variations produced by the changing economic situation. Such changes as we have recently observed seem to be the results of an effort to artificially inflate

prices beyond the presently discarded formula of supply and demand, and of an effort to control production. Even the threatened devaluation of the gold content of the dollar has had its effects.

Perhaps at no time in the lives of our generation have we been in a better position to determine the wisdom or fallacy of major adjustments in capital structure and of capital assets to meet changing conditions.

Looking back over a period of one year, we can observe two diametrically opposed trends in the price level of basic commodities, raw material, and labor. The present trend indicates increasing prices, increasingly higher taxes of every kind, prospective devaluation of the dollar, and forced inflation of credit, in contrast with the opposite situation a year ago.

Viewing conditions during the period of declining values prior to May of this year, when no immediate change seemed likely, many corporations seemingly acted wisely in adjusting their capital assets to more conservative levels by writing them down to their reproduction costs or useful values as measured by the lower price level then existing and the immediate as well as future prospects for business.

On the other hand, recent developments may cast some doubt on the wisdom of pursuing the same course, especially so in view of the present trend of legislation toward industrial control and higher taxation.

In the light of our experience, it would be hazardous for any one to venture the opinion that a price level at any time—and particularly during the last six months—was sufficiently stable to justify a write-down of capital assets to that level in order to express properly in the financial statements the relative worth of an enterprise.

The prospect for closer cooperation in the various branches of industry, particularly in relation to material and labor costs, and to profit margin, may force industrial groups to place their capital structures, asset values, distribution costs, and net earnings in a relation that may be compared fairly with those of their competitors.

From an accounting viewpoint it is certainly consistent—and from a practical viewpoint logical at least—to deal with fixed assets on the basis of their historical cost rather than on a basis of reproduction cost determined from year to year or at various intervals when fluctuations occur and when the economic situation forces radical changes in the price level.

This does not preclude corporations from increasing their insurance to compensate for a difference in price levels, nor does it deny the

wisdom of an additional reserve provision which may be necessary to compensate for a higher price level as a particular fixed asset approaches the end of its useful life.

Inability to even guess what the price level will be when the particular fixed asset must be replaced would seem to confirm the wisdom of relying upon historical cost as the most logical basis for determining the provision for exhaustion of that asset, with such variations as may be needed from time to time and as may be justified by earnings.

It seems improbable that any company would be justified in writing up or down its fixed capital assets to accord with ever-changing price levels. No better example of the impracticability of accurate revaluation of assets can be given than that of the Interstate Commerce Commission's valuation of railroads in accordance with the act passed during the period of low price levels. Millions of dollars have been spent by the I. C. C. in its efforts to determine the value of these important utilities of our country. When their valuations in some instances were completed the very basis upon which they were made could have been proven fallacious because raw materials, equipment, and wages had risen to much higher figures than those used at the time such valuations were made. It would seem to be more logical to have adhered to the "Prudent Investment Theory" for such valuations. The original cost of our railroads was, in itself, a function of two variable intrinsic changes in the values of raw materials and labor and whenever we deal with the problem it always involves the permanency in value of the currency in which it is expressed.

To illustrate this point, it is significant to note that an index of 100 for combined labor and material prices in 1913 rose gradually to its peak of 273 in 1920, and declined from that figure to 153 in July of 1932. It would be speculative to guess the trend of this index subsequent to June 1, of this year, but the immediate situation indicates that it is reasonable to expect a rising trend.

When assets were represented by small outlays of capital and business organizations were smaller and less complex than those existing today, it was possible, perhaps, to value assets with some degree of accuracy and measure results from year to year by annual appraisal of such assets.

Mass production, with corporate organizations constantly becoming larger and more complex, has made it increasingly impracticable to attempt any such valuation of capital assets from time to time, al-

though if any one were so wise as to be able to determine just when an enduring price level had been reached, strong argument for revaluation of capital assets to that value would be relevant.

Primarily, capital assets of an enterprise, whose securities are widely held, are acquired by the capital initially paid into the company by the investors.

When such equities are expressed by definitely redeemable obligations, such as bonds, the company will be compelled to maintain the asset at the amount it originally cost by making provision from year to year for the exhaustion of that asset through charges to operations.

The write-down of such assets to lower levels in no way alters the obligation to repay the original investors the face amount of the securities they hold. This amount must be accumulated out of earnings.

Where no fixed obligations, senior to equity shares, are outstanding, an adjustment of fixed assets to a lower price level may be made, provided the owners of such shares agree that they have suffered a capital loss due to a permanent change in price level. By such action they acknowledge a definite shrinkage in their capital outlay. They cannot, however, fail to realize that the ultimate return of their original investment will be no more than the amount to which they have reduced their property values.

This situation stresses the necessity for continuing as an element of cost the yearly proportionate amount of this capital loss in order to reflect a proper picture of the return on the initial investment and to give any future stockholder a proper basis upon which he may determine the correct earning capacity of the enterprise.

In the last analysis, however, capital employed in fixed assets demands no augmentation or diminution until the necessity for the renewal of such assets arises.

On the other hand, capital employed in raw material inventory, accounts receivable, and other working assets must be increased during a general rise in price level if the business is to continue on the same scale as previously.

Fortunately, an increase in the range of price brings with it correspondingly increased profits from which reserves may be built up and retained in the business to the extent required by such changes.

At this point it might be well to observe the favored position of many of our corporations during the depression period where such corporations had not invested their undistributed earnings and reserves in fixed capital assets, but had retained such capital sums in

the business in such form as to be useful during troublesome times rather than definitely locked up in idle plant, machinery, and equipment of little, if any, productive value to the enterprise.

This discussion encourages me to appeal to all accountants to give more consideration to the broader questions involved in business and finance of our time, to look upon accounts as a medium of information of value not only to management but to the investor, creditor, and general public; and to not lose sight of the fact that the historical character of the balance sheet cannot be expected to reflect ever-changing values, as it is at best only an expression of opinion.

No group of individuals in business today have been given a greater wealth of experience during the last five years for future guidance than the industrial accountant.

At no other period during the last century has so broad a field for thought been spread before us.

CHAIRMAN MARSH: As you all know, it is the custom to provide a period for discussion, to give you an opportunity to question the speaker. Having gotten started so late this morning, we probably shall not have sufficient time for discussion of this particular paper. I am sure Colonel Carter will be glad to answer any questions you may wish to ask.

WILLIAM B. CASTENHOLZ (*Senior Partner, Castenholz & Dittmar, C. P. A., Chicago, Ill.*): For the sake of brevity and clarity, I made a few notes while Colonel Carter was delivering his address. I think I will read those rather than depend upon my memory.

Referring to the adjustments of capital assets in connection with price fluctuations, should they not be made, especially if balance sheets are to reflect certain ratios, that are called for, between the current assets and fixed assets? It seems to me this matter is especially important in cases where fixed indebtedness contracts provide for a given ratio relationship between current and fixed assets. It should be borne in mind that current assets always reflect present price levels.

Should these adjustments be through some form of surplus directly or through operating accounts? That is, should the road lead through production or operating costs, thus bringing the present usage charge of fixed assets into the present price level structure? Other usage charges are, of course, on the basis of the present price level. That is true of wages; that is true of material.

Does not plant furnish a service which is also properly measurable in present price levels? We know it does because manufacturers who start in business today certainly must buy those services in the present market. Should others who have purchased their plants some time ago either at a higher or a lower price, state their costs differently?

It seems to me that this matter is important in connection with our urge to bring industry upon some type of uniform basis of comparison with reference to relative production costs. It seems to me in this connection the concept that we have of the real objects of investment and fixed assets comes into play.

In other words, is it the object of business to recover through costs the dollars "once upon a time" invested in plant or to preserve the plant intact as a going, currently convertible, service?

CHAIRMAN MARSH: As I understand it briefly then, your question is as to whether or not there should be a fixed ratio between current assets and fixed assets?

MR. CASTENHOLZ: Not whether there should. In many instances, in connection with contracts of indebtedness, the contract provides that a certain ratio shall be maintained between the current assets and the fixed assets. Fixed assets are bought upon one price level and we are told they should not be changed. They do not need to be changed on the books, but if they are not changed in the balance sheet to reflect what the money lender expects to see there, the ratio between current assets and fixed assets is not going to be correct, it seems to me.

COLONEL CARTER: I think that is a very interesting question, Mr. Castenholz. I am wondering if you are not bringing up a point that needs a little further research. After all, the money lender that you speak of has become accustomed to looking at some ratio between the current assets and fixed assets, but I do not think he could tell you what it means.

MR. CASTENHOLZ: Shouldn't he?

COLONEL CARTER: I think that when you make provision for that asset out of your current operations—in other words, we are providing 1923 dollars, we will say, out of 1930 to 1940 dollars. Whether the dollar today should be the measure or should be the differential between the 1923 dollar and this 20-year period or 10-

year period of dollars, I think is very hazardous to guess. I think we should continue on our 1923 dollar basis until we have approached the end of the useful life of that asset. Then I think we have to make our adjustment if there is any need of it, in our accumulation.

Have I given you a thought?

MR. CASTENHOLZ: Yes, Colonel Carter, except I think you emphasize too strongly the dollars. What I should like to emphasize is the service. In other words, I think an investment in plant is not an investment in dollars, nor in dead matter. It is an investment in services and the services are delivered to us during a period of time. Now, what are those services worth today in contrast to what they were worth at the time the original investment was made therein?

COLONEL CARTER: It depends on competitive conditions. If an industry cannot exist, as many of them could not during the period of depression, on the low volume of business they were doing, I do not know how much their assets were worth. In some cases they were liabilities. I think we have to take a longer pull in arriving at any basis upon which we can calculate the service value of a capital asset. I think it has to be made over a period of years rather than from year to year. I am only expressing my personal opinion of that.

MR. CASTENHOLZ: May I add a little thought, Colonel Carter? Don't misunderstand me. I am not saying the moment we have an idea we should immediately rush to the books of record and scribble something there, but it seems to me that for constructive purposes we might at least incorporate some of these thoughts or ideas in statistical form as a basis for business guidance.

In other words, it seems to me the relationship between current assets (which have to maintain your fixed assets in the long run) and fixed assets is a very important one. We can invest too heavily in fixed assets, and in order to see what our investment in fixed assets is today, in relation to current assets which are all stated in present-day price levels, it seems to me we should raise or lower, let us say, in statistical form, the value of the fixed assets so that we may know whether or not we are infringing upon some of these well-established principles of relationship between these two forms of assets.

COLONEL CARTER: I think there is a great deal of logic in the argument, which in effect, as I understand it, is this: To accomplish

that you would carry the depreciation charge against operations in relation to the value of the services fixed assets rendered, in the profit results of the year. It is not illogical at all. I believe there is enough data at hand to get some idea as to how that might be accomplished.

JOHN BALCH (*Partner, Balch, Funk & Co., Philadelphia, Pa.*): That reminds me that my granddad really was not such a fool as we thought he was.

COLONEL CARTER: You bet.

MR. BALCH: I have been kicked around considerably for remarking it was not such a bad practice, after all, in good times to charge off considerable depreciation and in bad times to rather dodge it. It is surprising sometimes how, in the high-powered theories that we follow, we eventually come back to a few fundamentals that granddad had before we were born.

COLONEL CARTER: I think that is right.

E. E. SALT (*Controller, Art Metal Works, Inc., Newark, N. J.*): I had a rather peculiar and concrete case of which I should like your opinion. Back in the war years, 1917 and 1918, in a large printing plant in this town, they bought and are operating a press that cost them \$8,000. They bought it in the early part of 1917. In the early part of 1918, they bought an identical press and paid \$11,000. Later in 1918 they bought another identical press and paid \$15,000. The presses were set on the floor, side by side.

Would you raise the asset value for balance sheet purposes of the first press, in addition to setting up depreciation rates on the basis of their historic cost, or how would you treat a case of that kind in reference to your balance sheet valuation?

The question of insurance, of course, was taken care of by insuring all three for higher value.

COLONEL CARTER: I should say "No." I would leave them at what they cost me.

MR. SALT: What effect will that have on your uniform cost system which operates in that trade association?

COLONEL CARTER: I think you can provide for that if there is a uniform cost system installed. You must provide for deprecia-

tion in that system and your depreciation is based upon the historic cost of your asset, isn't it?

MR. SALT: What does that do to your cost figure?

COLONEL CARTER: It gives the correct result, based upon your wasting asset.

MR. SALT: There is quite a question involved as to getting uniformity of cost of production.

COLONEL CARTER: The average of the three will work out so that you have a proper basis. It should not put your system out of line at all.

MR. SALT: But it is.

EDW. WM. KRUEGER (*Partner, Walton, Joplin, Langer & Co., Chicago, Ill.*): I think we ought to hold our decision in abeyance as to what we are going to do with valuation of fixed assets. If we have popular administration of this Industrial Act which must of necessity establish and maintain fair commodity prices, we are going to have quite radical changes in equalizing the fixed assets of an industry. I cannot see any other way of doing it. We are in a transition period. Perhaps in the next six months or year we will know more about it, if this Industrial Act is a permanent rather than a temporary proposition.

CHAIRMAN MARSH: I am sorry to interrupt this discussion. Time is getting short. We must proceed with the next paper.

The next paper is somewhat of an innovation in these sessions. The success of it will depend entirely upon you. It is a case study of the factors which should be considered prior to the development of a new line of products. We have taken a hypothetical company. It is in sound financial condition, but by reason of lack of demand for its products, its sales have been constantly decreasing. It has been suggested that we have a new line of products.

There were distributed to you as you came in, I think, papers concerning the Wood Products Company. The speaker will review briefly the facts contained in that paper, and then we will turn the meeting over for discussion, expecting from you, ladies and gentlemen, suggestions on the things that should be considered before it is finally decided to proceed with this new line of products.

The speaker is Mervyn B. Walsh of Detroit. Mr. Walsh has been engaged in the public practice of accountancy for a number of years,

and for five years was with Thomas A. Edison, Incorporated. He founded the Walsh Institute of Accountancy, a professional school in Detroit, teaching accountancy and business administration.

Mr. Walsh, too, has been very active in accounting fields. He was President of the Michigan Association of Certified Public Accountants, and was President of our Detroit Chapter. Since 1931 he has been a National Director of the National Association of Cost Accountants. I take pleasure in introducing Mr. Mervyn B. Walsh.

FACTORS WHICH SHOULD BE CONSIDERED PRIOR TO THE DEVELOPMENT OF A NEW LINE OF PRODUCT

Mervyn B. Walsh

Partner, Walsh and Company, Detroit, Michigan

AS Bill Marsh told you, this is your session. You have become accustomed to sitting back and permitting the speaker to do the work. In this session we have turned the tables, so to speak, and you will be called upon to do the work. I have been selected merely to direct your activity and to coordinate the suggestions which you make.

You have just listened to a very interesting technical discussion of capital assets, and Colonel Carter made one statement that assets at times have become liabilities. Most of you who are employed by manufacturing companies have realized that fact during the past few years. So, to overcome that condition, many industrial companies have solved their problem of idle plants by the adoption of new products.

By no means has the adoption of new products been a cure-all for industrial ills. Some companies have found, to their dismay, that the adoption of new products has added to their losses, although the new products have helped to absorb idle plants. On the other hand, there are many specific instances where the adoption of new products has proved profitable.

Just a short time ago a conference was held at Boston by the New England Council. The following organizations cooperated in this conference:

The American Marketing Society, the Massachusetts Institute of Technology, the Boston University College of Business Administration, the Department of Education of the Commonwealth of Massachusetts, the Rhode Island School of Design, and the United States Bureau of Foreign and Domestic Commerce.

I cite this fact to show you that in New England they considered the adoption of new products of sufficient importance to hold a three-day conference to discuss nothing else but that one subject.

A few specific illustrations of the adoption of new products may give you the atmosphere of the session this morning. The McCord Radiator and Manufacturing Company has developed a new cooling and air conditioning system for buildings. This company formerly specialized in the manufacture of automobile accessories.

The Detroit Rock Salt Company, owning the second largest salt mine in the United States, has developed a rock salt dissolver for the use of consumers in preparing brine from the rock salt.

The Federal Mogul Corporation has added to its line of bearings, boat propellers made out of a new alloy metal. You may be interested to know that one of these propellers was used by Gar Wood in the last Harmsworth Trophy Race.

The Murray Corporation of America, engaged in the manufacture of automobile bodies, has now developed a new insulated steel barrel for the brewing industry.

A number of cotton manufacturers have developed new cotton fabric for roadbuilding and construction purposes.

The Kelvinator Corporation has added to its line of refrigerators a heating system for homes, and so, without number, we may continue to tell you of new products that companies have adopted during the last few years in an effort to absorb idle plant capacities.

The session this morning is to be devoted to a consideration of the information which should be given by the accounting department to the management when the question of new products arises. A specific case has been selected for your consideration, and the session is to be developed from the suggestions of members present. We hope to bring out all possible phases of information which should be given to the management in order that the management may decide upon the proper course to follow in adopting a new product.

Possibly, the accountant in rendering a report of this nature should step beyond strict financial lines and supply information having to do with other branches of the business. We hope that you will make suggestions, for without your suggestions this meeting will not continue. We want you to visualize our problem, and to assist you we have selected the case of the Wood Products Company. See Figures 1 and 2.

WOOD PRODUCTS COMPANY

Statement of Financial Condition at May 31, 1933

ASSETS

CURRENT ASSETS:

Cash on deposit and on hand	\$114,674.20
Accounts receivable, less reserve	26,709.12
Inventories—lumber, materials, etc.	69,806.97

Total current assets	\$211,190.29
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CAPITAL ASSETS:

Land and improvements	\$ 41,305.52
Buildings	\$ 67,672.41
Deduct: Reserve for depreciation	22,459.67

45,212.74

Machinery and equipment	\$124,139.67
Deduct: Reserve for depreciation	53,691.66

70,448.01

Delivery equipment	\$ 23,668.47
Deduct: Reserve for depreciation	12,651.65

11,016.82

Furniture and fixtures	\$ 3,437.62
Deduct: Reserve for depreciation	1,770.40

1,667.22

Railroad siding	\$ 3,072.75
Deduct: Reserve for depreciation	1,214.56

1,858.19

Total capital assets	171,508.50
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DEFERRED CHARGES:

Prepaid taxes	\$ 2,902.23
Prepaid insurance	2,153.81

5,056.04

\$387,754.83

LIABILITIES, CAPITAL, AND SURPLUS

CURRENT LIABILITIES:

Accounts payable—trade	\$ 29,423.85
Accrued expenses	3,691.73

Payroll	\$ 2,450.80
Insurance—compensation	1,240.93

\$ 3,691.73

Total current liabilities	\$ 33,115.58
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CAPITAL AND SURPLUS:

Common stock—2,000 shares, \$100.00 par value	200,000.00
Earned surplus	154,639.25

\$387,754.83

FIGURE 1

WOOD PRODUCTS COMPANY

Summary Operating Statement, Years 1932, 1931 and 1930

	1932	1931	1930
Sales	\$310,462.55	\$562,795.46	\$897,675.41
Cost of goods sold.....	278,265.58	515,228.15	801,224.06
Gross profit	\$ 32,196.97	\$ 47,567.31	\$ 96,451.35
Selling expenses	\$ 36,459.32	\$ 41,709.33	\$ 46,973.27
Administrative expenses	38,976.19	46,576.41	48,670.40
	\$ 75,435.51	\$ 88,285.74	\$ 95,643.67
Net profit or loss from operations	\$ 43,238.54	\$ 40,718.43	\$ 807.68

FIGURE 2

This company has been engaged in the manufacture of small wooden products for industrial companies, and the Wood Products Company, although not a large one, has enjoyed prosperity during its lifetime. In common with many other businesses of this type, it has suffered a reverse and for the past few years the volume of sales has decreased. Until now, the company has been engaged in what we might call special job production. In other words, the production would not begin until the company first received the order.

A survey was made by some of the employees of this company in an effort to solve the problem of reduced profits. As a result of this survey, the suggestion was made to the management that the company should enter a new field, namely, the manufacture of toys. Here we have a standard product, unlike what the company has been manufacturing, and the management is somewhat perplexed.

Should the company enter this distinctly new field to absorb part of the idle plant and to supplement the work which is now being done, or should the company adhere to the course that has been followed for more than a score of years, of making special wooden parts for other manufacturers?

I think all managements, more or less, have been confronted with this same problem, and, frankly speaking, the accountant of the organization may give valuable service to the management when it comes time to decide an important question of this kind. The accountant, however, has to go beyond the scope of bookkeeping or strict accounting and prepare a comprehensive report which will enable the management to decide this all-important question.

Now that the business depression has ended, some may feel that

there will not be a need for new products. However, I question that line of thought because even with business changing, we find that, as your President remarked, business is in a constant state of flux.

So this morning you are to make the suggestions as to what this report to the management shall contain. It will be based entirely upon your suggestions and we desire that you shall feel free to make any suggestions that you choose. When we have a sufficient number of suggestions, we will discuss them, and decide together which of these suggestions should be included in a report to the management.

In other words, what should we tell the management in a situation of this kind? What information should we give it? How should it be given? How far should we go? What is the accountant's job?

We are going to have you make the suggestions, to deal with the production factors, financial factors, sales factors, and, in short, any factors that you may think of, applying to the Wood Products Company. We might say before we begin that the financial condition of the company is sound. It is merely a question of going into a new field.

Do not hesitate and wait for someone else to say something. We are going to coordinate the suggestions and then prepare our report in the rough. Who has the first suggestion?

MR. KRUEGER: I will start the ball rolling. I should think the first important point would be to determine the new market, especially from the standpoint of what will be the probable requirement, and also with what products it will compete and the possible effect of that competition on your line of product, whether your competitors are going to meet it, or whether you will be in a more secure position than you might otherwise be.

MR. WALSH: Mr. Krueger of Chicago has suggested that the accountant should give some thought to the potential market for the new product. That will be our first suggestion. We shall not discuss it at this time. We merely wish to collect a number of suggestions. Then, when we have them here we shall discuss them together and find out just which ones should be included in our report. So, just make any suggestions that you please. They may or may not go into the report, depending upon the consensus of opinion of the members present.

JOHN HORN (*Controller, Bakelite Corporation, New York, N. Y.*): Are we working on the assumption that the present line of products is definitely out of the picture? A good many concerns have left their first love and wandered into new fields where they found that they had not already taken care of their existing market, simply by lack of research and effort of that nature which might have resulted in benefit to themselves.

I have knowledge of one big company whose first love is a certain product and they wandered far afield. Today they are not as sound as they were then. They might have been better off if they had maintained the field in which they were predominant during their early life.

MR. WALSH: This particular company is not forsaking its first love, but rather is supplementing its present line of products with a new product. I believe that we will find in practice that it is more common to supplement the present line of products with new products. I illustrated seven or eight companies of that type, companies that have supplemented their present line of products rather than to go into an entirely new field. That is the type of company we are dealing with, one that is just supplementing its present line to absorb idle plant.

C. F. EVELEIGH (*Assistant Secretary-Treasurer, Eli Lilly & Co., Indianapolis, Ind.*): Following Mr. Krueger's suggestion on the study of market conditions, it will be important at the same time to find out how many additional salesmen would be required, and the amount of selling expense involved.

MR. BALCH: I have two thoughts that are rather closely inter-related. What has been the profit of competitive firms for the last three years in those new lines which they propose to incorporate? What has been the operation of their competitors with respect to profits over the period of the last, say, three to five years? What proportion of gross profit may there be in this new proposed article against those that they have been making in the past? That latter would be very pertinent. In the proposed article, I think the spread would be pretty narrow, compared to what they expected to get.

EMORY A. AUSTIN (*Auditor, Hammermill Paper Co., Erie, Pa.*): I think one of the questions we must consider is the additional working capital and the credit risk which would now be taken. In the past, as I understand it, the company has sold to a limited

number of manufacturers whose product would probably be sold to department stores and other manufacturers and to individual consumers. The question of survey of the credit risk would be very important.

HOWARD ECKERT (*Financial Executive, Thomas A. Edison, Inc., Orange, N. J.*): It seems to me that this new line of products is highly seasonal. I would question the amount of inventory which would have to be worked up ahead to take care of this seasonal trade. Another question I would ask is, would these new products use some of the waste material of the main line? If they would, that would add desirability to the new product.

WILLIAM H. MERS (*C. P. A., Partner, Eckelman & Mers, Cincinnati, Ohio*): The question of patents and copyrights would have to be considered for manufacturing such things as shuffleboard and table tennis. In table tennis, for instance, the copyright name is Ping Pong. That would have to be considered, whether we would be involving ourselves in trouble in connection with any infringement of patents or copyrights.

MR. CASTENHOLZ: Be sure that the new product would be sold at a somewhat lower price than the regular product, and would not supplant the regular product. I know of a shoe manufacturer who made a somewhat lower priced line of shoes and found the trade grabbed the lower line and refused to buy the regular line. The more he sold, the more he lost.

C. MILTON CLARK (*Farm Credit Administration, Washington, D. C.*): Bearing out the question of copyrights, I think as we look into the toy industry it is a question of types of toys to be made. There are certain types which are more or less standard and I do not think they produce the profit that the specialties do. On the other hand, the specialties may be put on the shelves and never sold. Won't we have to have some kind of designer to design these types of toys that will bring us in good profit, perhaps some sort of a department to get into the question of research of what toy we must make and try to sell?

F. R. FLETCHER (*Partner, Scovell, Wellington & Co., Boston, Mass.*): Paralleling to an extent the question raised by Mr. Eckert, it is apparent that we are going to add materially to the various materials required. In the past this plant has been working

with wood, lumber. We are going to add to that perhaps various classes of lumber that have not been carried in the past. We are going to add parts, going to add finished inventories. The whole question of stock control, the question of manufacturing specifications on which that stock control will hinge, must be taken into consideration.

W. C. ARMSTRONG, JR. (*Secretary and Treasurer, Rockbestos Products Corporation, New Haven, Conn.*): There is the question of foreign competition. A great many toys are manufactured abroad and sold in this country cheaper than we can produce them.

W. P. FISKE (*Assistant Professor of Accounting, Massachusetts Institute of Technology, Boston, Mass.*): In line with the suggestion just made, the foreign competition happens to come from those companies which have had foreign exchange difficulties. The foreign competition will seem to me to be rather of a severe type because of depreciated currency which would possibly affect the price for which we could sell the product.

R. J. BERNARD (*Controller, Sargent and Co., New Haven, Conn.*): I think one of the main items to be considered is the cost of fixed assets needed to make the new products, to make sure we will eventually include it in our cost, our selling price.

MR. WALSH: We have already stated in our facts, I believe, that a comparatively small investment would be required for new assets. I think we may safely pass up that particular part of the discussion.

J. C. METSCH (*Cost Accountant, Lehn and Fink, Inc., Bloomfield, N. J.*): In making the estimates in order to determine the selling price, will overhead be included, or will we proceed with the point of view that the overhead has to be absorbed by the original products.

MR. WALSH: You have in mind in that question, whether you shall use the regular rate of overhead or be inclined to favor the new product?

MR. METSCH: Yes.

A. J. PAGET (*Auditor, The Fairbanks Co., New York City*): One thing would be the method of marketing, through jobbers or sales agents or direct to retailers and study the whole marketing plan, both that used by possible competitors and perhaps modified, the

advertising and everything connected with the marketing of the product.

GEORGE A. SCHWANINGER (*Works Accountant Manager, Mergenthaler Linotype Co., Brooklyn, N. Y.*): In considering a product, it is my opinion that something should be selected which is not competitive. As I see it that would not help the present-day economic situation. Therefore, I should say the first requirement would be that whatever is selected must be something that is in the line of new development.

F. EARL REUWER (*Controller, Emerson Drug Co., Baltimore, Md.*): I have not heard anyone say whether Washington is going to allow us to make these.

GEORGE E. LEITCH (*Factory Accountant, Burroughs Adding Machine Co., Detroit, Mich.*): Undoubtedly we should check into the question of whether or not our present factory personnel is going to be able to take care of the manufacture of this product, and whether or not, in view of the competition we are bound to run into, we are going to be able to use our present labor at the same rate of wages that we pay them, or whether or not it is going to be necessary for us to hire cheaper labor or reduce our present labor to a cheaper rate in order to enter into this highly competitive field.

ALVIN KROPF (*Controller, R. L. Polk and Co., Detroit, Mich.*): I think one of the essential factors to be considered is whether or not the present sales organization is capable of promoting the new product, or is it foreign to their present line as far as sales promotion ideas are concerned.

MR. WALSH: That is sort of in line with question number two; I take it we are going to need new salesmen or use our present force.

MR. KROPF: It is not a question of new salesmen, but sales managers. In other words, are they in position to promote the new product?

MR. WALSH: We will add that to number two—sales managers.

MORRIS KNAPP (*Office Manager and Factory Accountant, The Fairbanks Co., Binghamton, N. Y.*): This seems to be a seasonal product. Can it safely be scheduled to give an even manufacturing load or to fit into the seasonal variation of the present products?

MR. WALSH: That is in line with suggestion five. We are going to discuss that phase of it.

H. B. SPEYER (*Controller, Champion Spark Plug Co., Toledo, Ohio*): Aren't we considering a lot of things that are not possible of execution? We have been distinctly selfish, have had a selfish motive in starting this competitive product. We have certain plant equipment, which we want to utilize. We are not going to consider the investment heavily of new equipment, new personnel, or possibly new marketing facilities. We are going to attempt to utilize part of the fixed equipment we have in an effort to tide us over. Isn't that the thought back of our general proposition?

MR. WALSH: Yes, that is the thought.

MR. SPEYER: We must limit ourselves, then, to a type of product which will be primarily a wooden product, which can be fabricated with our present plant, present equipment, to be limited to the marketing facilities which we are accustomed to. It is assumed, you would imagine from the discussion, that we are going to attempt to cut the price on something which is more or less established in the market, or we are going to be a bad economic influence. This is a selfish motive we have undertaken.

MR. WALSH: This is not to be just a temporary product, but rather a permanent additional one, though the general thought is we will use our plant as we now have it.

We have sixteen suggestions. Rather than continue indefinitely, let us discuss now what we have because our time is getting along toward noon, and we will have only a limited time for discussion.

Our picture of this is that we are the accountant of this company. Each one of you may assume that you hold that position. You will now be called upon to submit the report to the management, including all of these thoughts or possibly some of them. What should the scope of the accountant's report include? Should it include all these things? Should we go into each one of these things or should we be content to just talk about overhead rates, use of machinery, and so on?

Let us discuss that. Let us take the first suggestion, market conditions. The survey made by the company has proved or concluded that there is a potential market for the new product. We are acquainted, of course, with market conditions and, suffice it to say,

the company should be fairly well sure that there is a potential market before a new product is adopted.

We should also discuss the market conditions as they exist, in a report of this kind, should we not? Who will defend that?

COLONEL CARTER: It seems to me that point is particularly pertinent in any prognostication that an accountant makes. I assume that with the data at hand in respect to the sales organization of this company, he knows pretty well how they are going to perform, judging them by their past. I assume that with a declining business with a profit of \$807 to a loss of \$43,000 over a period of three years (See Figure 2), the sales organization has been pretty well prodded to activity, and it seems to me the accountant is in a position to ask the sales organization, and the sales organization should give a better guess than he can, as to whether or not they are going to be able to increase their gross sales by, say, \$300,000 with this new product.

If they cannot, it seems to me that the company is headed for a loss. I am wondering if their cash position as disclosed by the balance sheet (See Figure 1) is sufficiently strong to enable them to embark on a venture of this kind which, undoubtedly, will take them a year to get under way.

MR. WALSH: Do you conclude, then, that the accountant should discuss market conditions?

COLONEL CARTER: I think he should require some substantial evidence from the sales organization as to what they can do.

MR. WALSH: And that information should be included in his report?

COLONEL CARTER: I think so.

MR. WALSH: Have we any negative side to that subject of market conditions? Well, that is one thing; then we have concluded that should be in the report, the market conditions based upon information as rendered by the sales department.

Our second question is on additional salesmen and sales management. Manifestly, we are going into an entirely new field. I judge these two suggestions have to do with the question—Is our present sales department equipped to handle this new product, or should we have an entirely new type of sales personnel? That is

rather a ticklish question for the accountant to write about. Should he write about it in his report? Who thinks yes?

PAUL J. HAGEN (*Controller and Secretary, Roger Smith Hotels Corp., New York, N.Y.*): I think he should write about it to this extent, if the company in making its preliminary survey had also considered market conditions to some extent and has a general plan of the marketing organization in marketing the new product. Certainly, they will have to furnish the accountant with that data in order to enable him to make a proper estimate of profit and loss and an operating budget.

MR. WALSH: What I should like to bring out is the question—should the accountant just sit back and be an editor, so to speak, of information which is given to him, or should he be some sort of a person who does considerable study of these questions on his own part? That is one of the real, important things. Manifestly, something should be said about the salesmen.

MR. LEITCH: I do not believe in the accountant's report he should take up the question of the additional salesmen and management. I believe it is fair to assume that this company has a sales manager who should make his report from the field end to the executive officer, and that the accountant should confine his report to the accounting end.

I do not believe our accountant should delve into the salesmen and sales management, or the marketing conditions even. I think he should confine his report to his end of the business and let the sales manager take care of his end of the business, and let the executive officers put the two together and formulate their plan from that.

H. L. McCULLY (*Assistant Treasurer, Bauer & Black, Chicago, Ill.*): It seems in the injection of new products, there are three considerations that ought to be taken into account. One is that you are going to put this new product in because you have a lot of selling expense and you want the new product to help absorb it. You have a lot of capacity, but your sales force won't absorb that. You are going to absorb that capacity.

The third point, I think, is entirely out, the necessity for that new product to fit in a lot line. From what information is given here, it would appear the main problem is the absorption of manufacturing

capacity and there is going to be some gross profit, or we won't put the product in.

I think if the accountant has any job in the business at all, that it is to tell management what is going to happen to the gross profit. It looks as though one thing is going to happen. It seems to me the very basic thing we should include in our report is, first, what is the gross profit going to be, and how much of the gross profit are we going to use in the additional sales expense? We have admitted that the problem is one of distributing something we have facilities to manufacture.

MR. WALSH: I would say this question is probably on a par with interest on investment as far as discussion is concerned. Inasmuch as the minutes are fleeting, we cannot take as much time as we should like. As there is a negative and an affirmative side to this question, just raise your hands, if you will, on the affirmative side, if this should be included.

. . . A majority of the hands were raised. . . .

MR. WALSH: The affirmative wins on the vote as to whether the accountant should comment on the activities and the expense involved, at any rate, of the additional sales personnel.

The question was asked about profit of competitors for the past three years. Someone inquired as to how much profit competitors in this field made. In other words, if our future competitors are losing money, should we rush in? I think that is a very apt suggestion and along with that is the subject of gross profit. Should the accountant go to the trouble to try to find out the earning power of competitors in this prospective new field? Who thinks he should? Does someone wish to discuss this suggestion?

E. S. LANCASTER (*Treasurer, The American Paper Goods Co., Kensington, Conn.*): That matter of competitors' profit is a thing we have had occasion to analyze on a number of occasions and sometimes we have kept out of something that we thought of going into, and sometimes we have gone in.

The accountant should get information as to *who* his probable competitors are and get a fair picture of what their gross margin is as compared with manufacturing expenses, how much of the remainder they have to spend for advertising, how much they have to spend for salesmen, how much they have to spend on office expenses—you will find in some cases that you take on a product that may

quadruple or more than quadruple the number of customers you have to handle, which may be very expensive.

I believe if the sales department gives him reliable data as to who the people are that they have to worry about, it is absolutely the accountant's job to be able to turn around and tell the sales department what, if anything, they are apt to have left out of this gross margin, after they have provided for the things their competitors have spent to sell that product.

MR. CASTENHOLZ: Are the competitors going to rush to our establishment and give us all the information about their profits, gross profits, selling plans, and so on? It seems to me we have to view this problem entirely from our own standpoint and to work it out ourselves rather than from the standpoint of our competitors. I think that information would be hard to get from competitors.

MR. WALSH: We have two opinions, showing that all these suggestions are more or less debatable. Mr. Castenholz makes the suggestion that it would be difficult to find out just what our competitors are doing, unless they happen to be members of the Stock Exchange and publish their reports. We, then, probably might not know.

Let us decide that question. Should the accountant try, through Dun and Bradstreet, Inc., and other similar agencies, to get information as to profits, or should he be content to forget that phase of it in his report? How many think he should try to get the information?

. . . A majority of those present raised their hands. . . .

MR. WALSH: I think we will have to settle that question, for lack of time, with the thought that if we can secure the information, it should be included in the report. That would settle it, would it not, Mr. Castenholz?

MR. CASTENHOLZ: Yes.

MR. WALSH: We go to the additional working capital and credit risk, which is a very important suggestion. I do not know that we really need to discuss that. It is obvious that the accountant should comment on additional working capital that will be required for this new product and credit risk that will be involved. It is obvious that the accountant must include that in his report. So, rather than take the time to discuss it, let us pass on to some more of these debatable questions and decide them.

The next question is whether we shall use waste materials. In other words, is the new product to be a by-product, so to speak? Our thought is, that it is not to be a by-product. In other words, new materials will have to be purchased. We are going right into a new field. That same question has seasonal production, and I suppose all of us who go shopping around December 24 at eight o'clock, have some realization that this might be a seasonal product. Should the accountant cover that or not? Who would like to comment on seasonal production in a report of this kind?

MR. ECKERT: It seems to me this is a very vital question and ties up more or less with more working capital. If this company has heretofore been producing on orders only, this becomes a very vital question in this proposed new line, because if this is a seasonal article, undoubtedly they will have to invest money and material in producing their stock before the selling season arrives. It seems to me this is a very important thing for the accountant to point out.

MR. WALSH: I think that should be touched upon. There is no doubt about it. Many of you may be interested to know that the Department of Commerce at Washington has spent considerable time along the line of studying seasonal production. So, if you are interested in that phase, you may get information from that source.

The next is on patents and copyrights. Here is a question that we might discuss a moment. Should the accountant in his report try to guide the management against the violation of patents or copyrights in a field of this kind, or should he refer them to the attorney of the organization? Who thinks it should be included in the report?

HENRY KNUST (*Certified Public Accountant, Hartford, Conn.*): I think the accountant should cover it in his report to the extent that it may involve the factor of royalties.

GEORGE V. LANG (*Secretary and Treasurer, United Engineering and Foundry Co., Pittsburgh, Pa.*): I think it is the accountant's job to call attention to anything that affects the cost of producing this order. The accountant is in a better position to know all the various expenditures against production. The salesman is not always familiar with those things. I think the accountant should call the attention of the management to the possibility of things that may turn up. It will be necessary for the accountant to know that before he can advise the management as to the possible cost of production.

MR. WALSH: I should like to have an expression of opinion on these patents. Mr. Lang is of the opinion that it should be included because of the possible expense involved for infringement and trouble in courts, and so on.

How many think this really should be covered in an accountant's report?

. . . A majority of those present raised their hands. . . .

MR. WALSH: Those in the affirmative win again. They seem to think the accountant should be rather broadminded and cover many phases. That, of course, is the purpose of this discussion, to find out just how far an accountant should go in submitting to management a report on the potential new product.

We will go on, then, to the selling price of the new product. Who wishes to discuss that? I think that suggestion had to do with the possible selling price that we would receive for the product and how it would affect competitors, and so on.

MR. CASTENHOLZ: I brought that up, Mr. Chairman. It seems to me we are running into the danger of becoming a price cutter unless we are very careful with reference to making the prices. We do not want to set ourselves up in competition by making cut-throat prices against those who are legitimately in this particular line of business. We are going to injure ourselves, it seems to me, by doing that, and in the long run we are going to find ourselves selling those cheap articles rather than our regular product. I think there is a real danger there.

I know of a shoe manufacturer who turned out a cheaper line to take care of his idle capacity. The cheaper line sold and his regular line declined. The result was that he really lost more money than he did before he undertook the manufacture of the new product.

MR. WALSH: I agree with your thoughts. I said that by no means has the adoption of new products been a cure-all for industrial ills. I think that has been the truth of many new products, that they have caused additional losses rather than new profits, and that is the reason for the session. We, as accountants, should decide this morning how to protect our company against spending its activity in the unprofitable fields. If time would permit, we might talk about the economic conditions and cutthroat prices.

However, I understand that tomorrow afternoon Colonel Gaskill is going to tell us about that subject, so we shall wait until then and

hear what Colonel Gaskill has to say about competitive prices, and find out what Congress does at four o'clock this afternoon.

Number eight has to do with specialties and research work. The suggestion, as I recall it, was that here we might have a standard product and then we may bring out every few months some new-fangled thought to amuse children and parents—mostly the parents, I suppose.

The question is—are we going into the manufacture of a standard product that will sell year-in and year-out, such as doll carriages or something of that type, or are we going into a special field where we are going to bring out new lines every month or two? If so, how much expense will be involved? Is a thought of that kind one that the accountant should attempt to cover in his report? Should we look far enough ahead to try to cover that particular question? Who thinks yes?

. . . About ten hands were raised. . . .

MR. SPEYER: The question has come up repeatedly of what the accountant should include in the report. I think that is the basis of the information we are trying to secure this morning. This report, first of all, is not an accountant's report, strictly speaking. It is far from a bookkeeper's report. It is a report intended to help the management and is apparently available to this man who is preparing all the various activities of the business, sales engineering, and so on.

It does not appear to me that there is anything that could be left out. There is no use for the accountant to get up a lot of figures about a product which will make a lot of money, and find it fully covered by somebody else's patent. We have to consider all angles of it if it is going to be helpful to the management. The accountant cannot be limited in a special report of this kind to his bookkeeping methods.

MR. WALSH: That is true. On the other hand, Mr. Castenholz has told us about the company selling cheap shoes and losing more money, and that has been the history of many companies. What we wish to do is to try to find out just how far the accountant (and he is not a bookkeeper in this case; he has available all sorts of information) should go in telling the management about these things.

Should he go into economic conditions and discuss patents and all these things specifically, or does he just give the management a brief report and say that the gross profit will be so much, and here is how

we will use it, and there will be so much left, and that is all? That is the thought we want to bring out. How far should an accountant go? Should he just dispose of gross profit, or go into the economic side?

MR. CASTENHOLZ: May I suggest that it would be well for him to lose his bookkeeper complex and adopt management's viewpoint?

MR. WALSH: That is a good suggestion.

MR. R. E. GRAVER (*Glen Rock, N. J.*): Would not the answers to quite a few of these questions be unnecessary if we knew what we are going to do, what the new product is to be. Whoever suggests the new product, will undoubtedly bring with the suggestion the answer to many questions. Perhaps there won't be any danger of infringement, and if the accountant is to go over all that, he may be covering ground that has already been covered.

MR. WALSH: I think that is true to some extent, except, of course, upon how thoroughly the organization has gone into the question. It has been a matter of record that many companies have not thoroughly investigated new products, only to find themselves embarrassed at a later time, and we are trying to preclude a condition of that kind by emphasizing the field that should be covered if it has not been covered. Manifestly, we would not write a long document apprising the management of all these questions, if available information were at hand for the management to use for decision.

That is our thought, that we want to emphasize some of the things, possibly not all of them, that the accountant should give thought to in preparing a report of that nature.

MR. CASTENHOLZ: We must not assume that management is entirely stupid, either.

MR. WALSH: No. They may be, but we should not assume it.

MR. LEITCH: I believe, if I understand this problem correctly, the point is that the accountant is going to supply certain information to the management. The question is whether or not he is going to supply all this information on which we make suggestions, or whether he is simply going to touch on it or whether he is going to ignore certain parts of it. Am I right?

MR. WALSH: That is correct. How far should he go?

MR. LEITCH: It seems to me that our accountant in this particular case should take care of the accounting end of the problem and that your legal and sales departments should take care of their end of the problem, and that several different departments or department heads should report to the executive, rather than to make this accountant the one who is going to make the decision, let us say, and simply make out a report to back up his opinion. I do not think the management is asking for a report from him to back up his opinion. I think he should confine himself to the accounting end of it and let the other departments take care of their ends of it.

MR. WALSH: That is exactly what we wish to find out. However, we cannot discuss all of these. Some of these questions relative to foreign competition probably will be settled for us by our friends in London. So, rather than discuss these at great length at the moment, we might read the results of the Economic Conference, and what they do about these questions. No doubt, however, they would have a bearing upon this particular business.

The next question is an important one. I suppose many of you know from experience that management favors a weak sister, and sometimes when a new product is adopted the new product is favored by charging to its cost only a portion of its proper share of overhead. The gentleman who made that suggestion had that thought in mind—how should the overhead be distributed? We could talk about that at great length, no doubt, if time permitted, and we would have many opinions. However, I think there is a session tomorrow on debatable questions, and that certainly is one you might write down for tomorrow if you choose.

The last suggestion is an important one, having to do with labor rates. Will we have to employ new persons, or shall we use our present staff at their present rates or, to compete in a field of this kind, will we have to revise our present labor rates? I suppose there is a wealth of material to be brought out on that particular suggestion.

As a matter of fact, all these suggestions really could be discussed at great length, but our session has come to a conclusion and we must adjourn in order that you may keep your luncheon engagements.

In conclusion, we wish to leave this thought with you: As an accountant, you should lose, as Mr. Castenholz suggested, your book-keeper complex, and prepare for the management a comprehensive

report, not giving your own opinion necessarily, but giving all of the facts, and then permit the management to decide.

CHAIRMAN MARSH: It is unfortunate that lack of time made it necessary for Mr. Walsh to hurry through this very interesting discussion. Incidentally, I think we should take a lesson for the remainder of the sessions, and try to get started a little more promptly. This afternoon, please try to be here promptly at two o'clock.

. . . Announcements. . . .

. . . The meeting adjourned at twelve-thirty o'clock. . . .

SESSION II
PRICING FOR PROFIT

TUESDAY AFTERNOON, JUNE 13, 1933

WILLIAM F. MARSH, *Chairman*

ANDREW NELSON was born in Irvine, Scotland, on November 3, 1896. He graduated from New York Law School with the degree of Bachelor of Laws, and also from Pace Institute, New York City, where he studied accounting. Later he took postgraduate work in accounting at the Walton School of Commerce. In 1918, he served in the Infantry of the United States Army and was honorably discharged in the Spring of 1919. He was licensed as a Certified Public Accountant, by examination, by the State of New Jersey in December, 1924, and some time later the same honor was bestowed by the State of New York. Ever since 1919 he has been active as a lay preacher and church administrator. His public speaking activities have carried him into many fields such as education, religion, politics, etc. In 1923 and 1924 he served as Controller of the Y. W. C. A. of the City of New York, during which period a uniform and coordinated system of accounts was developed. Later he served as Controller of Alfred Kohlberg, Inc., and Controller and Treasurer of the National Cellulose Corporation. He has been a private practitioner and a consulting accountant for many years and is active before the courts in presenting evidence, as an expert, relating to finance and accountancy. It was in the Fall of 1928 that he became associated with St. John's University, School of Accounting, Commerce and Finance, at which time he became an instructor in accounting. He previously served in a like capacity at Pace Institute, New York City. During the succeeding years he became Associate Professor and Professor of Accounting and at the present time is Chairman of the Department of Accounting of St. John's University. Professor Nelson has been active in accountancy associations and is a member of the New Jersey State Society of C. P. A.'s and the N. A. C. A. Professor Nelson is a member of Delta Theta Phi, a national law fraternity, Delta Mu Delta, Sigma Omega Psi and the Suburban Golf Club. He has written many papers on accounting subjects.

ROBERT PIERCE was born and educated in England. He served articles to one of the leading firms of chartered accountants in Manchester, England. During the years 1914-19 he saw service with the light artillery in the British Expeditionary Forces on the Mediterranean and Western fronts. Two years later, he joined Peat, Marwick, Mitchell & Co., Kansas City, Missouri, leaving their Detroit office March, 1923. He became Controller of Bear Pen Coal Company for five months, and from December, 1923 to August, 1929 was with the Detroit offices of Price, Waterhouse & Co. Since August, 1929 Mr. Pierce has been Secretary and Controller of Briggs Manufacturing Company, Detroit. Besides being one of the first members of the Kansas City Chapter of the N. A. C. A., he is a member of the Institute of Chartered Accountants and a Certified Public Accountant of the State of Michigan.

PRICING FOR PROFIT

PRESIDENT BULLIS: We have been gratified with the start of the Conference and we believe that the technical session this morning has been profitable and well worth while. We have had nationally known accountants present to us first, the reconstruction of the balance sheet with special emphasis upon the adjustment of capital assets and structure in view of present-day conditions, and second, a practical case study of the factors which should be considered prior to the development of a new line of product.

We are now on the way toward ascertaining what we can do about pricing for profit. As we all know, profit is the ultimate objective of every business. I will turn the Chair over to William Marsh, our National Director in charge of Research, who is Chairman of this meeting.

Mr. Marsh.

CHAIRMAN MARSH: For me to say more than a few words would take time that can be more profitably used, I think, by the speakers. The subject, "Pricing for Profit," I need not say, is extremely timely. We have two speakers as we had this morning.

The first speaker, Professor Andrew Nelson, is a native of Scotland, and a Certified Public Accountant of New York and New Jersey. He is Professor of Accounting and Finance and Chairman of the Department of Accounting of St. John's University of Brooklyn. He has been engaged in public accounting work for a number of years. He was formerly Lecturer in Accounting at the Pace Institute, Controller of the National Cellulose Company, also Controller of the Y. W. C. A. of New York City. While Controller of the Y. W. C. A. he developed a uniform system of accounts. Professor Nelson is a member of the Brooklyn Chapter.

It gives me great pleasure, ladies and gentlemen, to introduce Professor Nelson.

THE ECONOMIC FEATURES AND EFFECTS OF PRICING FOR PROFIT

ANDREW NELSON

Chairman

Department of Accounting, St. John's University, Brooklyn, N. Y.

WE are met today to discuss the all-important problem—prices and profits. The business depression which we have experienced

since October, 1929 makes this problem of prices and profits a timely topic and one of vital importance to the merchant, wholesaler, retailer, producer, manufacturer, distributor, worker, salaried employee, stock and bond holder, the Federal, state and local tax units, and the owner of life insurance policies and mortgages. Indeed, prices and profits are not, and cannot be considered, the sole problem and monopoly of the retailer; for capital and labor and the consumer are all involved. Andrew Carnegie expressed the relation in its real essence when he was asked which was the most important, capital, labor, or the consumer. In reply, he inquired which leg of a three-legged stool was the most necessary. No physician would consider a patient with a wrecked digestive system, a greatly increased consuming desire, and a shrunken stomach, as a healthy human being. In the same way we cannot expect health in our economic system with increasing production, higher retail and wholesale prices, lower wages and, consequently, decreased consumption. The result would be a greatly enhanced surplus, lowered production, decreasing prices, a shrunken wage, and still lower consuming powers, with unemployment and higher taxes necessary to support the workless and dependent unemployed. This is deflation, as we have experienced it during the last four years. Continued deflation is suicidal, and as dangerous as a palliative given to tide a patient over a crisis. Not that a palliative may not be necessary and desirable, but as a regular regimen it soon fails of its purpose. A heart stimulant may be useful to relieve the fluttering heart of an individual suffering from a heart attack, but such heroic treatment will not restore the patient to health nor prolong life indefinitely.

We have for too long believed in false barometers, and too many have placed their belief in deductions drawn from false premises. If one were to ask whether the thermometer determines the weather, or only records the temperature, all would at once give the correct answer. Yet we have persisted in considering the stock market not as a barometer of business but as a factor that regulates industry. It is true that low industrial activity is reflected in the prices of stocks, but high stock prices will not increase the output of iron, coal, steel and oil. Were it true that high stock prices stimulated industry, the panic of October, 1929 would never have occurred. Further, if it is true that increased stock prices indicate business recovery, we should have emerged from this depression in April, 1930; for, from December 1, 1929 to April 1, 1930, stock values

increased $19\frac{1}{2}\%$ or \$12,486,000,000, but no one thinks that because stock prices rose \$5,658,000,000 in May, 1933, and that because from March 1, 1933 new values of \$12,773,000,000 were added to stock prices on the New York Stock Exchange, the problem of pricing for profit has been solved. This huge sum of added stock values has meant a rise of 77% from July 1, 1932 to September 1, 1932; 63.1% from April 1, 1933 to June 1, 1933 and 64.8% since March 1, 1933. In other words, the aggregate stock value on November 1, 1932 was \$34,246,649,501; on September 1, 1932, \$27,782,501,806; on March 1, 1933, \$19,700,985,561; on May 1, 1933, \$26,815,110,054; and on June 1, 1933, \$32,473,061,395. This shows an advance of \$12,772,000,000 since March 1, 1933. Yet, unless business output increases, employment picks up, and prices rise from their disastrous low levels, the next few months may easily see this gain wiped out, as it was wiped out in October, 1929 and April, 1930.

The other day while walking along Broadway I overheard a conversation between two women. The first said to the other, "My dear, you have no idea what a pleasure shopping is these days. The stores are not crowded, and what bargains. Why, I bought a dress for \$3.85 that would have been worth \$15 in 1929 and a vanity case for \$1 that I know would have cost \$5 in 1929."

"Yes," said the second lady, "isn't it wonderful? Silk stockings for 39¢"—and then I lost the rest of the thrilling story as the two women rushed along with squeals of delight into a store, eager for new bargains.

But although this may be a paradise for those who still have money, for most of us it is a tragedy; and how tragic it is, I shall proceed to show you.

Let us first look at unemployment. It is estimated that from 12,000,000 to 13,000,000 people are unemployed in the United States. The support of this huge number is paralyzing business, for it means added taxes just when every one is least able to bear additional tax burdens. Our Federal Government has already advanced \$500,000,000 to the states. New York City alone has spent \$10,000,000 in 1929; \$14,660,896 in 1930; \$46,288,135 in 1931 and \$80,567,477 in 1932, while the estimate for 1933 is \$100,000,000. When you apply this to the nation as a whole, you can easily appreciate the drain placed upon the pocketbooks of those who still have money with which to pay taxes.

Now let us look at the national income. In 1929 the figure was \$85,200,000,000; 1930 showed \$70,700,000,000; 1931 showed \$52,-

700,000,000; 1932 showed \$40,000,000,000 and it is believed that the figure for 1933 will be approximately \$38,500,000,000. In other words, the 1932 income was 53% lower than 1929. Wages show the same decline. Let us take the 1923 factory wages as 100%. Then in 1929 the wage index must have been 95.2% and only 45% in 1932 with 1933 at a still lower level. Indeed, to April 1, 1933 factory employment had fallen 42% and wages 64%. Department store sales were off 55%, auto production was down 76%, and building contracts had declined 88%; check clearances in New York City were but 59% of the 1929 level. In brief, business, retailing, wholesaling and distributing, in the first quarter of 1933 was but 50% to 60% of what it was during the same period in 1929. If we take into account lay-off, spread work, shorter hours, and the shorter work week, the income of the industrial wage-earner is but 34.6% of the 1929 level.

Of course there is another side to this; the dollar has increased purchasing power; for, if we take the purchasing power of the dollar as 100 in 1926, it was 104 in 1929, and 183 on March 1, 1933. This indicates the collapse of wholesale prices of some 784 commodities, and so on June 1, 1933 the United States commodity level was 62.1, the English 62.7, and the German 92.3. I wish you to carefully bear these figures in mind as later their significance will become more apparent.

Now let us examine the plight of the farmer. In 1929 farmers living on 6,300,000 farms and numbering some 30,500,000 people, had a gross income of \$11,911,000,000 and a net income of \$3,000,000,000, while in 1932 their gross income had declined to \$5,250,000,000 and their net income had declined to zero. This was due to 47¢ wheat, 24¢ corn, 16¢ oats, 4¢ a pound hogs and 30¢ rye. Even now wheat is only 73¢, with an estimated production cost of over 90¢, corn 44¢, oats 24¢, and rye 60¢ a bushel. As a result we have had farm riots, milk embargoes and mortgage foreclosures on an average of 220,500 farms a year. Since 1926 some 809,780 farmers have lost their farms by foreclosure alone, excluding farms lost by tax sale. Now, with 25% of the American people no longer able to buy, it is readily understandable why the prices of the following commodities have shrunk to ridiculous levels: rubber 4¢ a lb., raw sugar 1.8¢, copper 4.6¢, zinc 2.7¢, wool 5.2¢, hides 4¢. Even today rubber is only 6¢ with a production cost of 31¢, copper 7¢ with a production cost of 10¢, wool 8¢, hides 13¢. Silk which recently sold for \$6 a lb. is now \$1.73, while silver has risen from 24¢ per ounce to 36¢ per

ounce but this is 89¢ below its previous level. The consequence of all this is that in the last two years farm prices have fallen 33% and farm land values have fallen 48%. This becomes clear when we remember that our carryover of cotton is 13,000,000 bales and wheat 360,000,000 bushels. No wonder we loan China \$50,000,000 to buy 900,000 bales of cotton, and 12,500,000 bushels of wheat, and trade 25,000,000 bushels of wheat to Brazil for 1,000,000 bags of coffee. We must also recollect that the increase in autos has eliminated enough horses and mules to release 15,000,000 acres of land for producing human food. Then, too, we have 20,000,000 acres of surplus corn land, for we feed 200,000,000 bushels less corn to hogs. Moreover, 100,000,000 bushels less corn are eaten by human beings than 20 years ago.

The same policy of laissez-faire and rugged individualism is shown in the oil industry. When oil was 10¢ a barrel, the Governors of Texas and Oklahoma shut the wells by using the militia and prices went to nearly \$1 a barrel. When this and the use of limited output or proration by the Texas Railroad Commission was declared illegal by the courts, chaos again reigned in the oil industry. Those who previously opposed regulation now frantically urge control. The American Petroleum Institute estimates our oil needs at 2,000,000 barrels a day, but watch what happened. In April, 1933 the daily output was 1,795,500 barrels (42 gallons each); May 3, 1933, 2,383,100; May 9, 2,902,539 barrels, and in the East Texas region alone 10,000 wells can produce 900,000 barrels daily. No wonder the prices of crude oil are today chaotic.

The same conditions exist in other industries. Copper mines are operating at 10% of maximum and yet 150,000 tons of copper are stored in Europe, and a surplus of 600,000 tons in the United States, and the surplus is piling up at the rate of 20,000 tons a month. All attempts at control by the international producers have failed.

In the automotive industry, 1929 saw over 5,000,000 cars turned out, 1932 a bare 1,500,000 and the industry is now working at but 31% of the 1929 capacity, while the maximum output is 9,000,000 cars. In the same way the possible annual output of shoes is 900,000,000 pairs, and our average consumption but 350,000,000 pairs. In coal, we can produce 800,000,000 tons annually whereas our needs have never exceeded 660,000,000. Now it is but 437,641,000 tons, a decline of 207,000,000 tons since 1929. The American Institute of Mining and Metallurgical Engineers estimated that the needs of the United States in 1950 would be 500,000,000 tons because of the in-

creasing use of oil, gas and water power. Yet we are faced with the prospect of surplus mines capable of burying us under a mountain of coal. These producers can and do reduce prices and wages to a starvation level, for 70% of the cost of coal is in wages paid to miners. As a consequence we have 250,000 miners out of work since 1929, and the wage of those working is below \$800 per year of 147 working days. From rugged individualism we get the ragged individual.

Let us now look at the steel industry. We have a potential output of 67,000,000 tons and have never produced or consumed over 56,000,000 tons. In April, 1933 the production was 15.5% of capacity, and is now only 45%. Let us compare this with railroad car loadings of 55.7% of capacity and the business index of 79%. •

But what of our financial institutions and foreign trade? In 1929 we issued new capital of \$10,183,000,000 and in 1932 a bare \$1,190,000,000. In the same way from January 1, 1921 to December 31, 1932, 10,400 banks with \$5,000,000,000 of deposits have closed. Stock sales which were 65,497,479 shares in October, 1930 declined to 20,096,557 shares in March, 1933; and bond sales from \$267,745,150, to \$192,056,000. The same catastrophic decline has taken place in our foreign trade—in 1929 the exports were \$5,240,995,000 but in 1932 they were only \$1,612,306,000; in 1929 the imports were \$4,399,361,000 but had declined to \$1,322,745,000 in 1932. Today our foreign trade is almost back to the level of 1905.

But you may say, enough of this gloom and these statistics. What relation do they have to prices and profits? How can they help in the solution of our problem? Well, let us see how previous problems of this nature have been solved, or at least approached in the past.

From 1791 manufacturers and producers have protected themselves from the devastating effect of cheap goods and low commodity prices by the tariff. In other words the government stepped in to aid business.

Now for our banks. To preserve credit and protect our currency the United States chartered the First and Second United States Banks. Then the states tried, but without success, between 1818 and 1863 to make banks safe. The Suffolk Bank system and the New York Safety Fund system are two samples of this type of state control. In 1863 the United States adopted the National Banking Act and the Federal Reserve System in 1914. Since 1921 over 10,400 banks have failed but 83% of the failures were of banks that did not belong to the Federal Reserve System.

By state and Federal subsidies and land gifts, the United States has aided canals, roads, river traffic, ocean shipping and air transportation. The Patent Office, State Department, Department of Agriculture, Department of Commerce, Department of Labor and Department of the Interior, all aid the business man, farmer, exporter and importer. Should we descend to the state and local governments, we should find government in business—from fire protection and oil inspection, to building, doctor, dentist, and lawyer licenses. Indeed, there is hardly an activity in which the government has not aided or regulated business for the public good when other means have failed.

Often the serious abuses in industry have aroused the public and caused the government to intervene. Examples of these interventions are: The Interstate Commerce Act, Sherman Anti-Trust Act, Elkins, Mann-Elkins and Clayton Acts. Another Act of this type is the Webb-Pomerene Export Act which exempts exporters from the teeth of the Sherman Anti-Trust Act. Then there is the Federal Trade Commission, the Radio Commission, and the Federal Power Commission. By these means the government has actually, in the case of radio, limited the number of radio stations and the channels they may use. By the Transportation Act of 1920 the earnings of the railroads were fixed at 5.75%. In the O'Fallon Railroad and Baltimore Street Railway cases the Supreme Court of the United States took cognizance of the theory of reproduction costs in the fixing of rates. It has gone so far as to say that as far as public utilities are concerned a return of 7% or 8% is fair and rates which do not yield a return equal to the above are confiscatory in nature.

Until recently the public, because of gross abuses such as rebates, passes, midnight tariffs, long and short hauls, etc., has confused size in business with a desire to do evil, and any hint of cooperation in an industry as a sign of duplicity and crookedness. Recently the chaos in industry has shown that we all suffer unless regulation of a proper kind can be brought about. In the case of the *United States vs. American Can Co.* (in the District Court of Maryland) the Court said—"A dislike for useless waste and destruction makes one loathe to follow the authority (i.e., Sherman Anti-Trust Act) which may be understood as requiring the breaking up of defendant's organization, in spite of its proved power for good, albeit with serious possibilities of evil." How far is this from the famous Standard Oil case of 1911?

Thus, we have seen that unless there is some regulation by a supreme authority, chaos results in prices, profits, wages and employ-

ment. Stock and bond prices sink, values disappear, taxes rise, mortgages and banks fall like winter snowflakes. The investments of the orphan and widow are swallowed up and the country is held in the grip of panic and depression.

State control of trade associations and price agreements cannot succeed because the authority of the state is not far-reaching enough. In Massachusetts the state regulation of hours and wages in the textile industry sent the factories to the South. The result was overbuilding of factories and lowered values, and higher taxes in Massachusetts along with unemployment. Since Congress alone can control interstate commerce, and nearly all trade is of that character, Congress is the logical seat of control. This idea of the social aspect of business has been voiced in our Supreme Court. In the Oklahoma Ice case the minority opinion held that there was no reason to grant a license to a new ice company to open for business in a city where the ice supply was already adequately provided for. In New York State the Milk Commission has fixed the price of milk in order to aid the farmer, and is refusing to issue licenses to new milk dealers in order to prevent useless duplication.

But you will protest that this is government in business. What of it? The government has always been in business. The Reconstruction Finance Corporation's entrance into business was not protested when it aided banks and railroads. Under rugged individualism the banks and railroads failed, and yet no one was heard to object when the government took the matter in hand.

For two generations gentlemen's agreements and trade associations have not proved successful. Ofttimes not all the members are gentlemen and when one breaks his bond or agreement and reduces wages and prices, all must follow or suffer the consequences. Then, too, the agreements that *have* worked have been kept secret and beyond the focus of the eye of the Sherman Anti-Trust Act, and whatever is secret is regarded with suspicion.

Now let us see in what industries price fixing and cooperative marketing has worked during the past decade. In those industries in which a few large concerns possess a practical monopoly the fixing of prices, both wholesale and retail, has been a relatively easy matter. Such industries are the iron and steel, the metals such as copper, lead, zinc and aluminum, and the communications such as telegraph and telephone. But when we come to the smaller and more numerous types of businesses such as farming, wholesaling and retailing of textiles, dry goods, shoes, etc., the attempt at price fixing has failed

abysmally. Consequently, these industries, along with the coal and oil industry, have been in a chaotic condition not only during the period of prosperity but also during the depression. It is a truism of business that no industry can long exist unless its sale price for its manufactured product exceeds its price of production. We have seen this work out during the last few years as concern after concern has gone to the wall because it has either been forced by the unscrupulous competition of others to reduce prices or has reduced prices in order to meet the greatly lowered wage scale paid to the working public at large.

But in spite of this gloomy situation, we have at least one law on our statute books which permits of trade associations, cooperative marketing and price fixing. I refer to the Webb-Pomerene Export Act of 1918. This Act has given American exporters engaged in foreign trade, the right to fix prices, output, trade boundaries, export quotas and in all other ways to engage in practices, which if carried on in the United States would lay them open to the severe penalties of the Sherman Anti-Trust Act. This law was passed in order to permit American exporters to engage in foreign trade without the handicap imposed upon them by our domestic laws. In foreign trade our merchants came into competition with foreign concerns that had the right to engage in practices which were illegal when carried out in the continental territory of our republic. Thus, American concerns were forced to fight, single-handed, foreign cartels and other organizations which had price-fixing agreements, export quotas, foreign sales areas and other agreements of this nature which were not permitted to American concerns. As a consequence, we find that American corporations have been and now are members of foreign cartels such as the aluminum, the Mazda light, the copper and other cartels of like nature. Certain domestic concerns such as the Banded Walnut Growers of the Pacific Coast have also been able to take advantage of this Act. Of course all concerns engaged in foreign trade under the terms of this Act are required to register under the Secretary of Commerce and to supply him with information respecting their officers, capital, shares of stocks and bonds, their domestic address, the holdings of their chief stockholders and other information of this type. Before the depression some 250 firms were engaged in foreign trade under the Webb Act and supplied this information to the government. As far as I know no complaints have arisen over the working of the Act or the practices of the firms registered under its terms.

Let us inquire as to what our government has done since March 4, 1933 in order to raise commodity price levels and thus aid the American working, buying, investing and interest-receiving public. I shall merely enumerate some of these attempts to boost commodity levels from their catastrophic fall since 1929. Already these Acts have brought about a 25% increase in farm products and a 15% to 20% rise in other commodities. For the last ten weeks business as measured by the output of steel, car loadings, sales of lumber, cotton, electrical output, etc., has shown an undiminished upward trend unbroken by any downward movement. Unfortunately, little advance has yet taken place in bond prices.

Some of the most important of the Congressional Acts to restore more favorable price levels are the following: The banking moratorium, the repeal of the gold standard, reduction of veterans' pensions, balancing of the budget, loans to states and municipalities for unemployment relief, the London Economic Conference, laws looking toward the relief of the small home owner, a large scheme of public works such as reforestation and building of necessary Federal, state and local construction. The most important of the bills which have recently been passed by the Senate is the National Industrial Recovery Act.

Let us for a few minutes study this Act and see its bearing on the problem of prices and profits. The Act is to last two years and as such is to be considered as temporary legislation for the purpose of bringing order out of the chaos into which prices have fallen since 1929. The three most important measures of this Act are: the licensing provision, the outlawry of the "Yellow Dog" labor contract and the right of workers to bargain collectively through representatives of their own choosing.

In addition, the government looks toward this Act as the means of reducing the hours of labor of approximately 70% of the total workers employed in the United States and also the raising of wage levels. Further provisions provide for codes of fair competition, the spreading of work, and agreements between manufacturers and distributors in the same industries which are fair to the public, to the parties making these agreements and protection for minority elements in each trade and industry.

Now let us examine the advantages and disadvantages of this Act. It is seen that all contracts must be fair to the public, to labor and to the majority and minority elements in each trade. Thus it is plain that this Act is not intended to be a weapon exercised by the govern-

ment for the purpose of bludgeoning labor, the consuming public or the manufacturer, distributor and seller. Perhaps the most opposed measure in this Act is that dealing with collective bargaining by labor and the abrogating of the "Yellow Dog" contract. Objections to these two clauses have been made by the National Association of Manufacturers and the United States Chamber of Commerce. Apparently, these two organizations and their members feel that due to the rise in the business index and commodity prices the worst of the depression is over; and consequently, they oppose taking labor into their confidence as partners under the National Recovery Act. Some powerful employers at least apparently wish to escape from the Anti-Trust laws in order to raise prices and consequently increase profits, but they do not desire to give the government or labor and the consuming public any restrictive powers to regulate and supervise wages and the length of the working day. I feel that this attitude is foolish, not to say dangerous. A rise in prices which is not followed by a substantial increase in wages will defeat the purpose of the Act.

No manufacturer can hope to make greater profits by increasing his selling price until the worker receives larger wages in order to make it possible for the consumer to increase his purchases and thus absorb the surplus goods which are bound to be produced through a rise in prices and an upturn in the business level. Should prices increase and wages not go up in proportion, we should be confronted by the dilemma that people would be unable to buy increasing quantities of goods, and that a surplus would result. And in spite of all attempts at government aid for recovery, the price level would again decline and we would be back to where we were in March, 1933. Of course this does not mean that labor should be absolutely free to make any unjust and unjustifiable demands that it cares or feels that it is able to exact; for, we all know that there has been racketeering in labor as there has been dishonesty in business. The rights of the industrialist and the consumer should also be protected and supervised, as also should be the rights of labor.

The Industrial Recovery Act administered by Brigadier General Hugh S. Johnson is to include the oil, iron and steel, automotive, textile and coal industries. Walter C. Teagle of the New Jersey Standard Oil Co. and Alfred P. Sloan of the General Motors Corporation have been suggested as additional administrators of this Act. These names alone should be sufficient to remove all fear that has been excited in the hearts of many over the licensing provision of the

Industrial Recovery Act. Indeed, it seems to me that any suspicion of the licensing clause is unjustified. Many feel that through use of this clause the government would limit, if not prohibit, the organization of new concerns and the entrance of the business man into industry; but let us see if the government has not already licensing power and how it has exercised this right. Doctors, dentists, lawyers, accountants, marine officers and hosts of other occupations are governed by the licensing powers of Federal, state and local governments and yet I feel that no complaint has been raised over the operation of these powers. Indeed, I feel that through the discreet exercise of this control undesirable and shady characters may be excluded from business on the basis of their previous racketeering reputations. We all know, I am sure, individuals who have followed the slogan, "If at first you don't succeed, fail, fail again." Certainly such characters are not an asset to any industry or organization that is trying to engage in fair and honest practices while charging decent prices, paying honest wages and earning fair profits.

Let us look for a minute at a country which has had, for some time, governmental control of industry and *has* permitted and encouraged cooperation and price-fixing in each individual phase of business life. I refer to Germany where cartels and price-fixing agreements are legal and the contracts agreed to by each particular industry can be and are enforced by the courts of that country. It is to be observed that the price index for England, United States and Germany in 1929 was 100, but in 1933 this had declined to approximately 60% for England and the United States, while it was still over 92% for Germany. This is due in part to trade associations and agreements in Germany which have the force of law; and, to the policy of *laissez-faire* and rugged individualism is due the poorer showing in England and the United States. Germany, with a population of more than half that of the United States, has an unemployed army of less than 5,000,000, whereas she should have more than 7,000,000 were her workless population to bear the same ratio as exists in the United States. One cause of this is the fact that her commodity level has not sunk as seriously as ours. In fact, a recent study by the League of Nations indicates that of the 30,000,000 or more unemployed people in the world, the United States with but 6% of the world's population, has well over 50% of the world's unemployed.

Let us see what steps have already been taken by manufacturers to organize under the National Industrial Recovery Act. F. B.

Davis, Jr., President of the United States Rubber Co. and also President of the Rubber Manufacturers Association, has stated that Newton D. Baker, former Secretary of War under President Wilson, has been engaged as special counsel to assist the rubber industry in working out an operating code under the National Industrial Recovery Act. This industry is one which has been severely affected in recent years by severe competition and price cutting. Other associations organizing under this act are: The National Retail Dry Goods Association, The National Tobacco Council, and the Silk Association of America. The "special fabrics group" of the Silk Association of America has named a committee headed by William Menke to work in cooperation with the Association in devising a fair competition code for the industry. It is at once apparent that retailers must organize for two purposes: first, to establish codes governing activities in the concerns that are covered by the National Industrial Recovery Act; and second, to protect themselves and see that they receive fair treatment from the host of manufacturers' codes that are being and will be drawn up in the near future under the Recovery Act. For let us remember that if the teeth are drawn from the Anti-Sherman Trust Act and other acts of this character without supervision by the government and control to see that fair play is given to all parts of industry, the same chaos is bound to occur in business as was the case before the passage of this law. Unless freight rates, prices charged by the manufacturer of iron, steel, textiles, autos and the production of coal and oil, rates for power, etc., are controlled, the wholesalers and retailers will find themselves at as serious a disadvantage as during the period of free and unlimited competition. We will consequently enter another period of chaos and unrestricted competition.

Let me remind you that during the war, another period of crisis, the government stepped into business, took over and ran the railroads, fixed prices, mediated in labor disputes and the fixing of hours and wages—and all this with little objection from the business man, the consumer and labor. In 1919 and 1920 government restriction was removed. Business was handed back to the free and untrammelled control of private enterprise, and in 1921–22 we had a panic. Let us not make agreements and cooperative understandings which will have a like effect in the future. If this National Industrial Recovery Act brings about higher prices and fair profits during the next two years and its life then ends, we are quite likely to see chaos, depression, sinking prices and vanishing profits as we have seen in

the past. It is ridiculous to save the patient for two years and then let him die. Unless our courts are given the power to enforce trade agreements and association understandings in the future, we shall again revert to uncontrolled private competition, ruinous prices, receding profits and business stagnation. For remember that in 1935, when this law becomes inoperative, unless its life is extended we again return to the situation that existed before its passage. And unless the Sherman Anti-Trust law and other restrictive acts of this character are repealed or modified and unless our courts modify their interpretation of the 14th Amendment, this happy two-year interlude will be but a fond memory.

In summation I would say to you that it is abominable to think that in a civilized country, like the good old U. S. A., wage scales such as the following can be allowed to exist:

Alabama—cotton mill hands working for \$1.44 per day of twelve hours.

Arkansas—lumber workers getting \$6 for a 60-hour week or 10¢ per hour.

Georgia—road workers being paid from 10¢ to 30¢ per hour.

Chicago—packers getting as low as \$3 per week.

Peoria—brass and aluminum workers receiving as low as \$9 per week.

New Jersey, Pennsylvania and other states—sweatshop women and children being paid as little as \$2 and \$3 per week.

Buying power has been depleted by starvation wages even as it has been by unemployment. The buying power of our nation has been robbed of much of its vitality simply because the rank and file do not get wages high enough to enable them to buy. It is not that people will not buy—but rather that they cannot buy.

Let us abolish sweated industry or anything that smacks of it;

Disabuse our minds of the fallacious theory of rugged individualism;

Pay our workers a decent and living wage;

Practice a sane regulation of production;

Deal firmly with the rebel minority, and introduce honesty and fair play into business and in the future let a gentleman's agreement mean what it says.

We shall then be able to get for the fruits of our labor a price that will afford us a fair measure of profit which is something that does not exist at the present time owing to the absence of a "Mass Market."

CHAIRMAN MARSH: Thank you. Professor Nelson, for your very thorough paper.

You have heard the economic features and effects of pricing for profit. The next speaker will tell us what the cost accountant can do about it.

Robert Pierce was born and educated in England and served articles to one of the leading firms of Chartered Accountants in Manchester, England. Mr. Pierce has been in public accounting work for many years. He was with Peat, Marwick, Mitchell & Co., in Kansas City and Detroit, and later with Price, Waterhouse & Co. in Detroit. Since 1929, he has been Secretary of the Briggs Manufacturing Company of Detroit. Besides being one of the first members of the N. A. C. A. Chapter, of Kansas City, he is a member of the Institute of Chartered Accountants and a Certified Public Accountant of the State of Michigan.

I take pleasure in presenting Mr. Robert Pierce to you.

PRICING FOR PROFIT

WHAT THE COST ACCOUNTANT CAN DO ABOUT IT

ROBERT PIERCE

Secretary

Briggs Manufacturing Co., Detroit, Mich.

WE are much enjoined these days to think realistically which, of course, simply means that we should squarely face the facts, appraise them rightly, as far as we can, and, pushing aside our airy fancies, govern our procedures by purposive action. Nowhere would we expect to find so high an average of realists as in business, exemplified by the practical man of affairs of the no-nonsense-about-me type whose motivation, we may suppose, derives from production schedules, selling quotas and financial programs. And yet the question may well be asked "What is the purpose of business?"

The question is not rhetorical but is proposed at the outset as a reminder that, whatever future Utopias may be evolved, any system of competitive effort based on the profit motive necessarily seeks the maximization of profit as the major purpose of business.

There is nothing novel in that; it is all very obvious; but the obvious, often enough, is screened behind a mass of irrelevancies and vague abstractions from the realm of "Never Was" so that at times we have the curious spectacle of a practical man pre-occupied with

a dizzy pattern of forms and procedures but quite overlooking the real goal of his activities.

Now, I am not proposing that we conjure up the grisly specter of the "economic man" with the appalling implications. Business today responds, as it should respond in increasing measure, to the responsibilities of a quickened social conscience, but, after all, the inexorable forces of competition will speedily pronounce and execute the sentence of extinction on every business whose activities no longer realize its primary purpose—the sustained capacity to operate at a profit.

In a word, then, to be busily occupied in any activity may be a salutary exercise and a laudable endeavor in itself but the final purpose of business is to derive continuing profits.

Now, it is all very well to stress our object, and with a spacious gesture, offer the illuminating advice that business must be so organized and directed as to ensure a profit. That is pretty much like the statesman who, when asked what his views were on farming, said he believed in it. Certainly we need no exhortation to so alluring a goal as greater profits but we do need at times, I think, to consider not only our purposes but also the procedure by which these purposes may be more completely realized.

We are thus led to a consideration of our topic, Pricing for Profit, which, without impropriety, may be said to be the focal point of the cost accountant's activities, however complex and varied his recognized functions may be.

We are dealing with a live, active business and not an economic cripple. It is a truism to say that the returns from production, the sales, must be sufficient to reimburse all costs—production, distribution, administration, financial—and provide a profit as well. Thus, it seems clear that all along the line the cost accountant, by the very nature of his duties, can effectively serve industry by furnishing it with reliable data, properly formulated and presented, as a necessary basis for operations intelligently planned, without which we are simply drifting in the changing currents of chance and circumstance, resting in the blissful assurance that we shall continue to be the recipients of the beneficence of Dame Fortune.

Industry unplanned, uncontrolled, and left to function with no more positive direction than the stereotyped motive of the routine, may continue to function for a time, but lacking purposeful, planned effort, it is certain its progress will be halting, uncertain, and retrogressive except in an industrial paradise. Perhaps this seems like a

side glance at the New Deal; actually it is an old story in its proper setting.

Sales prices must be set at right levels—and the natural forces in a competitive field will quickly determine the maximum—production must be directed so as to ensure the greatest output for which there is an effective demand, costs of production must be controlled, not merely recorded, and in like manner distribution can not be regarded as a set of self-originating, automatic motions so long as the product somehow eventually reaches the consumer, while the costs of administration are by no means negligible. Then, again, there are important questions of organization and finance to be considered.

It is not to be supposed that all the factors I have mentioned can at all times be perfectly coordinated so as to ensure, with certainty, the profitable operation of every business; it is not nearly so simple as that. But it can be said, I think, that in each of the elements contributing in due proportion to the final purpose under consideration, the cost accountant can be of very real service.

Within the necessarily restricted limits of a single paper, we can not hope to cover, with anything like completeness, so broad a field, but from this general survey we may proceed to consider salient features, some in detail, others in broad outline.

The Fallacy of Gross

We may keep the major purpose well to the fore and yet, singularly enough, confuse two quite different ideas—volume and profit. It is true that, under normal conditions of controlled operations, the greater the volume of sales, the greater the profit; indeed that sounds something like tautology and yet the analysis of many financial statements reveals that volume has been secured largely by unremunerative sales—sales at prices which could not yield anything like an adequate selling margin.

Of course occasions and conditions arise in every business when it may be prudent to forego immediate profit and, with a definite purpose in mind, to disregard the so-called break-even point. But this is, so to speak, a tactical move in the general scheme—something very different from the deliberate, though ill-considered and mistaken policy which, concentrating on impressive volume swollen by non-remunerative items, succeeds in securing a slim margin of gross profit but actually a net loss on many of the sales.

Mere volume, then, may easily be illusory but we are less likely to be deluded if we recall that when we speak of "profit" we really have

in mind "net profit." Instead of volume at any price, selected volume at a profit is the objective; not greater volume, simply, but greater selected volume. In making the selection, the product of established fact and sound judgment, the cost accountant, as I have already indicated, can undoubtedly be of great service in selecting, interpreting and applying the facts of business from which derive the most potent profit-producing force in any form of business activity, effective management.

Major Reasons Why Profits Fail to Come Up to Expectations

1. As a rule, purposeless effort means abortive effort with opportunities frittered away, as we often find when we inquire why profits fail to come up to expectations. In the first place, there is indefiniteness of policy in the setting of prices. In the desire to hold or acquire business, either the estimating department or the sales department, with the approval of the management, slenderizes the profit margin to microscopic proportions in the blissful assurance that making the sale is the only thing that matters. Surely, they seem to say, large sales volume is of itself the keystone of profit making; it provides large production and, consequently, low costs of production, or at any rate it enables large distribution and therefore low costs of distribution, and continuing, so long as "old man overhead" is taken care of, a profit must accrue sooner or later. It is rather curious to note how many practical business men who are so contemptuous of "mere theory," but who, nevertheless, are strangely influenced by catchwords and slogans, seem to imagine that volume necessarily connotes profits, when as I have said in directing attention to the fallacy of gross, it is futile to talk of increased sales unless we mean increased sales at a reasonable profit. Of course this does not mean to say that each individual sale must, under all circumstances, yield its margin of profit; occasions may arise and do arise in every business, and particularly so at a time of price adjustments, when losses must be frankly faced. But this, of course, does not affect the principle to which I have referred, because, in dealing with our topic, we must necessarily assume a business which expects to continue not merely this year or next, but indefinitely.

2. Having set the price for a product, even though a fair profit has been provided for by the estimating and sales departments and by the management, the anticipated profit is not realized because of, for example, poor engineering specifications, inadequate preparation by the production engineering division, poor production planning, or

because of loose methods in actual production or distribution. Of course, there is little that the cost accountant can do with regard to the engineering phases of the job except that the distinct lapses on the part of the engineering division will probably come to his attention and through him to the management. In other words, operating results statistically determined point to the required remedial action.

3. Improper or inadequate accounting, either of method, principle, or control, thereby misleading management in its conclusions based on detailed cost records or on the financial and general accounting records. Arising out of the foregoing is the question as to whether in planning the profits of the business, regard must be had not merely to a fair return on the sales turnover, but also a reasonable return on the capital invested; and we are thus lead to consider such further more or less controversial questions as: What constitutes a reasonable return? What is meant by the capital invested?

Again, in dealing with the more detailed accounting questions which arise in relation to cost finding and price fixing, we are confronted with the following pertinent inquiries:

Is depreciation adequately provided for in the accounts, and is proper accounting treatment given to additions, betterments, replacements and renewals, and to the factor of obsolescence?

Should the maintenance and depreciation of the producing properties be allocated to a general production program, say on an annual basis, or to individual contracts or releases?

Should the plant value be revised in accordance with present price levels with a view to reducing depreciation charges?

Should interest on investment be included as an element of cost?

Then, proceeding, we come to these general questions relating to managerial policy, such as:

What is our so-called "break-even point?"—that is, the point where all estimated costs and expenses meet anticipated income.

At what sales volume beyond the break-even point can we meet our interest and sinking fund requirements on borrowed money?

What sales volume beyond the break-even point is required to earn dividends of, say, 6% on our outstanding capital, in addition to all other prior charges, including contingency reserves?

What is the normal capacity of the business?

Over what period and on what basis did we determine normal capacity?

Is it possible to develop "normal" rates of overhead in the business under consideration, and what is the best method of application of overhead in the business?

What is the lowest volume point of production at which our actual cost and expenses can be covered if we exclude charges to the accounts which do not involve cash outlay?

If profit earning is paramount in business—and it undoubtedly is—then, in setting sales prices, profit should really be the first element introduced and the balance of the sales dollar should be apportioned in such a way that all other elements entering into the sales price are properly budgeted and controlled in order to arrive at the result desired.

Once we clearly recognize the significance of questions for solution, instead of having a vague, fluctuating idea surrounded by a mental haze, we are likely to reach a satisfactory answer. And so it is here. The right approach to the questions outlined—many of which I realize might well be developed considerably—may easily bridge the distance between a profit and a loss. The cost accountant, it is true, may not control the situation but he can direct it.

What Are the Requisites of Conducting Business Profitably?

The requisites of conducting business profitably are:

1. Proper organization
2. Capable management
3. Efficient operation
4. Effective control
5. Adequate finance.

Having thus summarized the major factors which contribute to the realization of profits, what, it may again be asked, is the function of the cost accountant and what is his responsibility with regard thereto? And we may repeat that since it is the cost accountant's job to establish, coordinate and interpret the factual data of business organizations, he thus provides management with the tools of control, but it is important to note, those tools must be soundly devised for a definite purpose—here remarking that the reference to the cost accountant herein is one of function and so extends to the controller in the larger business organizations.

The Duties and Responsibilities of the Cost Accountant

1. Designing the system. Occasionally one meets with superlative performances from an individual using tools that have seen

their best days, but such performance is usually the result of genius; and of geniuses the crop is always short. Clearly then, if the cost accountant is to do a good job, he should have good tools with which to work. A system that does not quickly, clearly and adequately depict the essential facts which it purports to develop should be thrown on the scrap heap. Notwithstanding the attention rightly directed in latter years to the cost of distribution, the emphasis, from an accounting viewpoint, in a manufacturing business has naturally been in connection with the manufacturing costs. With all due appreciation of the efforts devoted by cost accountants in years gone by in developing the job cost system and the process cost system, it is, I submit, of small profit to engage in any further discussion of their merits when we contrast the results obtainable from standard costs. I base my preference, shared I believe by the majority of cost accountants, on the same reasons that I prefer a multi-cylinder car of economical operation to the old two-lunger which, I know, was a marvel of achievement in its day.

What Are Standard Costs?

The object of a manufacturing business is the production of goods of a certain standard as efficiently as possible, and a cost system should, therefore, contribute to and become a working part of the production, and not merely a means of recording data historically.

The old types of cost systems are of the latter class. They do not easily lend themselves to the disclosure of inefficiencies, though inefficiencies may be brought to light by painstaking analysis of the accumulated figures. How can we expect to correct inefficiencies if their existence has not been made known? The results to be obtained from a cost system should be the basis upon which the merits of the system are judged and not, as is so often the case, the simplicity of the system or the low cost of operating it.

Actually the low cost may be illusory and, anyhow, measured by performance, it is largely non-effective, giving us an historical table when what we want is a tool for control. It is true that a properly designed standard cost system can not be installed by the cost accountant wedded to out-moded forms, but the expenditure incurred in obtaining this service can be saved many times over within a few months of its installation. If we have our scale of values rightly adjusted surely it will be agreed that the operation of a business with safety and profit entails the setting of standards of attainment and

definite manufacturing incentives before the commencement of manufacturing operations.

It would seem there can be no valid argument as to the necessity, as a practical measure of business prudence, for the predetermination of costs, but inasmuch as predetermined costs compiled statistically, independent of the actual cost system, are usually a long way from being correct, cost predetermination should be an integral part of the system. By the method indicated, the estimator can study the actual cost data and the variations from his estimated costs quickly and accurately.

Consider an old type cost system which embraces all of the operations of a business and tells what the costs were in dollars and cents during the preceding month by jobs or by units and, being tied-in to the general accounts, tells the resultant profit or loss for the period. We will go so far as to assume that the valuation of the beginning and ending inventories, particularly the process inventories, has been satisfactorily handled. Can the cost accountant operating such a system readily answer the following questions?

What were the actual manufacturing costs as distinguished from the cost of idleness?

- (a) By products?
- (b) By departments?

What losses were entailed by reason of not operating at normal capacity?

- (a) Due to the entire plant closing?
- (b) Due to individual departments failing to operate for each of the following reasons:
 - (1) lack of material
 - (2) lack of operators
 - (3) breakdown of equipment

What excessive charges are contained in the costs by reason of—

- (a) Buying materials from warehouse instead of mill, from jobber instead of manufacturer?
- (b) Other causes increasing the costs though not the values of materials laid down in our stores?
- (c) Excessive consumption of materials?
- (d) Spoiled work?
- (e) Inefficiency of operators?
- (f) Working employees overtime?
- (g) Increasing rates of pay during the period?
- (h) Unexpectedly high machine or tool operating costs?

- (i) Extraordinary maintenance costs?
- (j) Excessive consumption of factory supplies, power, etc.?

All these questions are important as they are relevant to our topic, and, what is so significant, the answers are developed by a standard cost system in routine fashion and without undue waste of time.

Again, as a matter of sound practice, concise accounting instructions should be embodied in a manual of standard procedure; otherwise, errors in allocation and distribution will creep in and thereby nullify, to some degree, the benefits which should be obtained. Proper standard procedure would require certain information to be reported to the factory manager or his department heads daily while other information might better be furnished weekly or monthly, but whatever the period may be, the report should be furnished on time. Timeliness of such information adds greatly to its value. It is plainly ridiculous for the head of a manufacturing business to sit down and compare lengthy complex summaries of operations of different periods, when all of the information concerning the things which went "cockeyed" can be condensed into statements requiring only a few minutes' perusal. If information of the character described above is not available, the usual result is that the cost accountant becomes pretty much an automatic recording machine, departing from routine from time to time to make special investigations of items which appear out of line. Moreover, because of the difficulty of presenting readily the required information to the manufacturing executive at the time he needs it without exasperating delay, the latter often sets up a cost investigation department of his own. The cost results developed by such a department are so often at variance with the costs developed under the regular cost system that the cost accountant spends a considerable portion of his time in fruitless argument and sterile debate.

It would be far better to have a cost accounting system whereby the data obtained is shown in relation to standards of attainment and to have in the cost department representatives from the operating divisions, whose main functions would be to assist in the compilation of the operating standards, to interpret the cost figures for the manufacturing division and to ensure that cost variations are given proper attention by them. Summarized briefly, standard costs provide a proper basis for gauging costs and the relative efficiency to expectation; they provide a better yardstick of measurement of costs collected in different periods of production and furnish a sound basis for setting selling prices with a view to a net profit. Can the

cost accountant help in this direction? The answer is a definite affirmative.

Distribution Costs

No less important than the manufacturing costs are the costs of distribution. In fact, the chances are that a dollar spent in distribution in a haphazard manner is wasted to a greater extent than the dollar spent at random in the process of manufacture. Of late years, the necessity for predetermining sales costs, under varying conditions, has been more and more emphasized; especially in these days of adjustment is it necessary to know how the dollar of distribution cost might be most profitably spent.

In this connection, it is essential that the accountant work in close cooperation with the sales manager, who, by the very nature of his job, should be responsible for market research and market planning. In any event, there should be definite responsibility for so important a function. Records relating to the costs of distribution by territories, by individual representatives, etc., will of course form the basis of the sales manager's conclusions as to the manner in which appropriations for distribution are set up. Once this information is available, compiled on accurate accounting principles, the task of the sales manager is lightened considerably and a means of control of the costs of predetermined sales programs effectively directed within reasonable limits.

While it is a comparatively simple matter for the sales manager to compile statistics whereby the territories or products producing the greatest sales volume are known, such statistics should be articulated with the actual costs developed from the accounting records so as to determine which territories or products yield the most profitable results in the final analysis. While favorable manufacturing costs may yield adequate net profits in the immediate territory of a manufacturing concern, the excessive cost of distribution in certain other territories may extinguish part or all of the profit available from sales not so burdened. It is essential, therefore, that the cost of distribution be carefully compiled and compared with some predetermined standards set by territories, by individual representatives and by each type of product. Can the cost accountant assist in this feature? Of course he can—and should.

Other profit-bearing studies which the accountant should be called upon to make, according to the type of business in which he is engaged, are the following:

- (1) The probable costs as well as the comparative costs of operating a sales branch or other direct representation in a territory.
 - (a) On a cash sales basis,
 - (b) On a credit basis.
- (2) The relative cost of distribution through one centralized jobber as against a number of jobbers in a certain territory. In this connection, the inventories on consignment would be quite a factor to be considered. If the territory were a large one, freight differentials might be an important feature for consideration.
- (3) The relative cost of distribution through outright sales to jobbers as against sales to direct retailers, having in mind the different bases of commissions, discounts, etc., allowable to the respective outlets and, where these commissions or discounts are computed on a sliding scale based upon differing sales volumes, the effect on the ultimate costs.
- (4) The relative costs of different methods of packing and crating.
- (5) The relative costs of different methods of transportation.
- (6) The costs of different advertising media.
- (7) The cost of servicing products.
- (8) Allowance for conversion losses of foreign exchange in payment for goods exported. In the case of goods sold and delivered at foreign ports, consideration would have to be given to different types of ocean freight, different bases of risk, e.g., general or particular average, harbor and dock dues, and the like.

Illustrative of the variations experienced in distribution costs are the statistics shown on Charts I and II which were compiled from "An Analysis of the Distribution Costs of 312 Manufacturers" by the Association of National Advertisers, Inc., in cooperation with the Research Department of our Association and presented here with their kind permission.

With the purpose of aiding interested manufacturers to obtain a comprehensive picture of the subject, the Association of National Advertisers, Inc., assembled facts on the various costs of distribution of representative manufacturers in leading industries of the country; and because the information desired was directly concerned with cost accounting, an invitation was extended to the National Association of Cost Accountants to participate.

All information presented in this report was based on data sup-

GROUP NO. 1—CONSUMER PRODUCTS
DISTRIBUTION COSTS—YEAR 1931—% TO NET SALES VOLUME

INDUSTRY	No. of Companies Reporting	Indication of Size of Companies Reporting—Dollars of Sales Volume 1931	Total Costs		Direct Selling Costs		Advertising and Sales Promotion		Transportation		Warehousing		Credit		Financial		General Administration		All Other	
			Percent	Position in Table	Percent	Position in Table	Percent	Position in Table	Percent	Position in Table	Percent	Position in Table	Percent	Position in Table	Percent	Position in Table	Percent	Position in Table		
Drugs & Toilet Articles	14	1 Under 1 Million—9	38.80	1	11.31	10	18.36	1	2.54	6	1.14	8	.80	16	1.83	7	2.49	8	.33	8
	9	1 " 1 " 1 "	38.61	2	17.11	2	7.52	4	3.20	5	2.26	3	2.69	2	1.46	13	4.12	2	.25	10
	4	1 " 1 " 1 "	33.08	3	14.83	4	6.11	9	1.06	12	3.99	2	2.52	3	1.49	11	3.08	5	..	..
Furniture	8	All over 1	32.93	4	15.78	3	7.90	3	1.69	8	1.42	6	.88	13	.99	18	4.27	1	..	..
Heating Equipment																				
Office Equipment																				
Supplies	9	2 Under ½	32.15	5	21.26	1	3.23	16	1.46	9	1.55	5	1.33	8	1.04	16	1.91	11	.37	7
Confections & Bottled Beverages	7	4 " 1 "	31.55	6	11.47	9	6.68	6	5.13	2	1.63	4	1.63	5	1.68	9	2.79	7	.54	3
Petroleum Products	4	All over 5	31.04	7	10.89	13	5.98	10	3.50	4	4.29	1	.86	14	.10	19	1.89	12	.47	1
Jewelry & Silverware	5	2 Under ½	28.66	8	11.54	8	6.29	7	.31	19	.46	17	3.51	1	2.09	6	4.06	3	.40	6
Grocery Products	9	3 " 1 "	27.11	9	11.08	12	6.21	8	5.19	1	.87	10	.63	18	1.67	10	.94	17	.52	4
Household Appliances	10	1 " ½	26.45	10	12.75	5	6.83	5	.87	14	.50	16	.63	19	1.02	17	3.61	4	.24	11
Automotive	10	All over 1	24.68	11	12.85	6	6.99	12	2.37	7	.58	14	1.60	6	1.20	15	1.52	15	.48	5
Clothing	12	1 Under ½	22.63	12	11.15	11	3.67	13	.54	18	.54	15	1.45	7	2.28	5	2.82	6	.18	13
Home Furnishings	14	4 " 1 "	21.66	13	12.55	11	2.94	17	.90	13	1.05	9	1.21	10	1.78	8	1.44	16	.02	16
Shoes	7	1 " 1 "	21.19	14	8.72	15	3.67	14	1.33	10	.85	11	1.83	4	2.34	4	1.69	14	.76	2
Hairdressing	9	2 " ½	16.94	15	9.07	14	2.16	18	1.16	11	.74	13	.84	15	2.43	3	2.22	9	.32	9
Agricultural Equipment & Supplies	7	All over 1	18.39	16	8.24	17	1.53	19	4.32	3	.42	18	1.29	9	1.37	14	.94	18	.23	12
Tobacco Products	4	" 1 "	18.27	17	8.23	19	3.23	2	.70	15	.34	19	.72	17	3.05	1	1.99	10	..	..
Sporting Goods	5	1 Under ½	18.21	18	8.37	16	3.64	15	.61	16	1.35	7	.92	12	2.67	2	.65	19	..	..
Radio Equipment																				
Radio Equipment & Supplies	6	All over 1	16.54	19	5.38	18	5.33	11	.57	17	.78	12	1.17	11	1.48	12	1.74	13	.09	14

CHART I

GROUP NO. 2—INDUSTRIAL PRODUCTS
DISTRIBUTION COSTS—YEAR 1931—% TO NET SALES VOLUME

INDUSTRY	No. of Companies Reporting	Indication of Size of Companies Reporting—Dollars of Sales Volume 1931	Total Costs		Direct Selling Costs		Advertising and Sales Promotion		Transportation		Warehousing		Credit		Financial		General Administration		All Other	
			Percent	Position in Table	Percent	Position in Table	Percent	Position in Table	Percent	Position in Table	Percent	Position in Table	Percent	Position in Table	Percent	Position in Table	Percent	Position in Table	Percent	Position in Table
Machinery & Machine Tools	35	11 Under ½ Million—2 Over 3 Millions	25.83	1	14.61	1	4.38	1	1.03	9	.78	3	1.23	2	1.12	8	2.60	3	.08	7
Building Material	17	4 " ½ " —5 " 5 "	23.68	2	11.77	3	2.95	4	1.61	5	.76	4	1.00	3	3.75	1	1.66	6	.18	6
Stone, Clay & Glass	12	1 " ½ " —5 " 5 "	21.74	3	10.04	6	3.05	2	1.38	6	1.84	1	.81	4	2.28	2	2.84	2	..	..
Paper & Paper Products	20	4 " ½ " —2 " 5 "	20.41	4	9.42	7	2.52	5	2.54	2	1.08	2	.80	5	1.15	7	2.35	5	.55	1
Chemical & Allied Products	6	1 " 1 " —1 " 5 "	19.87	5	10.56	4	1.23	9	3.33	1	.65	6	1.25	1	1.61	4	.90	7	.35	2
Electrical Equipment & Supplies	14	2 " ½ " —2 " 5 "	19.77	6	11.99	2	3.04	3	1.81	4	.12	10	.68	8	1.04	9	.80	9	.29	4
Iron, Steel and their products	20	5 " ½ " —4 " 5 "	18.95	7	8.97	8	1.89	6	1.30	8	.61	7	.69	7	2.14	3	3.04	1	.31	3
Non-ferrous Metals	6	1 " 1 " —2 " 5 "	18.48	8	10.20	5	1.07	10	1.94	3	.46	8	.80	6	1.41	5	2.59	4	.01	9
Transportation Equipment	10	1 " 1 " —5 " 5 "	15.50	9	8.76	9	1.67	7	1.36	7	.74	5	.65	9	1.31	6	.82	8	.19	5
Textiles	11	All over 1 " —5 " 5 "	9.15	10	5.10	10	1.28	8	.60	10	.15	9	.04	10	.83	10	.55	10	.02	8

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CHART I (Continued)

GROUP NO. 1—CONSUMER PRODUCTS

INDUSTRY	No. of Companies Reporting	EFFECT IN GENERAL OF VOLUME ON DISTRIBUTION COSTS	SOURCE OF OUTLET
Drugs & Toilet Articles.....	14	Nine high volume companies averaged slightly lower rate than the five under five million.	Nine principally through wholesalers; four others had largest volume to retailers, all sold to chain stores and mail order houses.
Paints & Varnishes.....	9	Three above 2½ millions averaged 42.80%; six below 2½ millions averaged only 36.52%, difference mainly in advertising and transportation.	Four had sales branches, their average 42.21% against 33.73% for other five, sales varied, distributed all fields.
Furniture.....	4	Two firms over 5 millions averaged 28.37% against 37.80% for two under 5 millions although 3.48% higher in warehousing.	Three head branches showed higher average cost than one selling from home office. Principal outlets were retailers, mail order houses, hotels and hospitals.
Heating Equipment.....	8	Three firms over 2½ millions averaged 31.76% against 33.64% for 5 under 2½ millions although advertising averaged 1.92% higher.	Six with sales branches averaged 34.27% compared with 28.90% for two without branches.
Office Equipment & Supplies.....	9	Highest volume averaged highest cost; 3 over 2½ millions averaged 40.83% against 27.82% for six below 2½ millions. (9.5% higher direct selling cost.)	Seven with sales branches averaged 34.44% compared with 24.15% for two without branches. Outlets: wholesalers, retailers, chain stores, mail order houses, government departments, etc.
Confections & Bottled Beverages.....	7	Highest volume averaged highest cost; 3 over 1 million averaged 37.92% against 26.77% for 4 below 1 million, mainly advertising and transportation.	Two with sales branches averaged higher than five without branches. Outlets: wholesalers, retailers and chain stores principally.
Petroleum Products.....	4	All high sales volume companies. Only comment is wide variance, ranging from 3% to 10% in advertising and sales promotion.	Principally to retailers, but substantial volume also to wholesalers and direct to consumers.
Jewelry & Silverware.....	5	Two over 2½ millions averaged 29.35% against 28.20% for three below 2½ millions.	Two companies with branches 28.75% against 28.60% for three without branches. Three sold largest volume to retailers and two to wholesalers. Also sold chain stores and mail order houses.
Grocery Products.....	9	High volume group averaged lower direct selling cost, but higher advertising and transportation; 5 above 5 millions 27.16%—other four—27.04%.	Manufactured and distributed food and other products sold in retail grocery stores. Sales chiefly to wholesalers, retailers and chain stores.
Household Appliances.....	10	High volume companies in most cases showed lowest rate of distribution cost; 5 over 2½ millions averaged 21.37% against 31.52% for other five.	Eight companies with branches 27.99% against 20.26% for other two. Sales to wholesalers, retailers, institutions and public utilities as well as direct to consumer.

CHART II

GROUP NO. 1—CONSUMER PRODUCTS

INDUSTRY	No. of Companies Reporting	EFFECT IN GENERAL OF VOLUME ON DISTRIBUTION COSTS	SOURCE OF OUTLET
Automotive.....	10	High volume companies averaged slightly higher than low volume companies; 5 over 2½ millions averaged 25.05% against 24.31% for other five.	This group includes two selling automobiles and eight selling accessories through retail outlets, mail order houses and wholesalers. The four with branches averaged higher rate than other six.
Clothing.....	12	Six over 2½ millions averaged 21.48% against 23.79% for other six. (Direct selling costs averaged 9.55% for big 6 against 12.74%.)	This group makes and sells men's, women's and children's clothing chiefly to retailers, although considerable is sold to wholesalers, chain stores and mail order houses.
Home Furnishings.....	14	High volume companies, in general, showed lowest rates of cost, but higher advertising. Six over 5 millions averaged 20.80% against 22.95% for lowest four.	Nine companies with branches 23.35% against 18.72% for other five. Five sold chiefly to wholesalers, three to retailers, one to chain stores and one house to house. Fair volume to mail order houses.
Shoes.....	7	Four over 2½ millions averaged 24.79% against 16.40% for other three. (4.66% higher in direct selling costs and 1.39% in advertising.)	Three companies with branches 23.97% against 19.11% for other four. Five sold chiefly to retailers, two to wholesalers, three sold in volume to chain stores and two to mail order houses.
Hardware.....	9	Four over 2½ millions averaged 18.66% against 19.17% for other five.	Three companies with branches averaged lower distribution costs than other six. Six sold chiefly to wholesalers. Some cases sold substantial volume to retailers, chain stores and mail order houses.
Agricultural Equipment & Supplies....	7	High volume companies, in general, showed lowest rates of cost. Four over 5 millions averaged 17.52% against 19.56% for other three.	Six companies with branches, the other sold from home office. Sales principally to retailers, wholesalers and mail order houses.
Tobacco Products.....	4	The three over 5 millions averaged 18.90% against 16.36% for other one. Advertising varied from 5.70% to 12.14% of sales.	Principal outlets: wholesalers and chain stores.
Sporting Goods.....	5	The three over 2½ millions averaged 19.58% against 16.14% for other two. Direct selling cost averaged 9.25% against 7.05%.	Four sold largest volume to wholesalers and one to retailers. Some volume also sold to mail order houses and chain stores.
Radio Equipment & Supplies.....	6	The four over 5 millions averaged 17.54% against 14.53% for other two. Difference mainly in advertising costs.	Three companies with branches 18.94% against 14.13% for other three. Wholesalers principal outlet. Some volume also sold to retailers, chain stores and mail order houses.

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CHART II (Continued)

GROUP NO. 2—INDUSTRIAL PRODUCTS

INDUSTRY	No. of Companies Reporting	EFFECT IN GENERAL OF VOLUME ON DISTRIBUTION COSTS	SOURCE OF OUTLET
Machinery & Machine Tools.....	35	The nine over 2½ millions averaged 20.18%, the fifteen between ½ and 2½ millions 24.42%, and the other eleven—25.02%. Difference in direct selling cost and advertising.	Eleven companies with branches. These, in general, showed higher costs than those without branches. Outlets were other manufacturers and wholesalers—some to retailers and mail order houses.
Building Materials & Supplies.....	17	The eight over 2½ millions averaged 24.99% against 22.51% for other nine.	Nine companies with branches. These, in general, showed higher costs than those without branches.
Stone, Clay & Glass Products.....	12	The five over 5 millions averaged 20.53% against 22.60% for other seven. Differences in all classes of expense.	Eight companies with branches. These, in general, showed higher costs than those without branches. Largest volume sold to manufacturers, wholesalers and contractors.
Paper & Paper Products.....	20	The six over 2½ millions averaged 21.18% against 20.09% for other fourteen. Variation negligible.	Eight companies with branches. These, in general, showed higher costs than those without branches.
Chemical & Allied Products.....	6	The three over 2½ millions averaged 18.23% against 21.51% for other three. Direct selling costs averaged almost 9% greater in small three.	All companies with branches. Analysis of sales office expenses showed 1.69% for home office expense to net sales and 1.79% for branch office expense.
Electrical Equipment & Supplies.....	14	The five over 2½ millions averaged 17.43% against 21.07% for other nine. Direct selling costs averaged 6.11% greater in latter group.	Eight companies with branches 22.17% against 16.56% for other six. Wholesalers and other manufacturers principal outlets.
Iron, Steel and their products.....	20	The four over 5 millions averaged 19.65%; the eleven between ½ and 5 millions 18.27% and the other five —19.88%.	Eight companies with branches. These, in most cases, showed higher costs than those without branches. Wholesalers and other manufacturers principal outlets.
Non-ferrous Metals.....	6	The two over 5 millions averaged 15.17% against 20.13% for other four. Difference mainly in direct selling cost.	Four companies with branches 17.91% against 19.61% for other two. Practically all sales to manufacturers.
Transportation Equipment.....	10	The five over 5 millions averaged 14.76% against 16.23% for other five. Difference mainly in direct selling cost and advertising.	Four companies with branches. These, in most cases, showed higher costs than those without branches. Sales principally to automobile manufacturers and railways.
Textiles.....	11	The five over 5 millions averaged 8.28% against 9.87% for other six. Difference mainly in direct selling cost, credit and collection expense.	Four companies with branches. These, in most cases, showed higher costs than those without branches. Sales principally to manufacturers and wholesalers.

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CHART II (*Continued*)

plied by 312 manufacturers representing 29 leading industries of the United States. Distribution costs were determined for each company in relation to net sales volume.

In some cases, a wide variation was found to exist in distribution costs between different industries and also between different companies within the same industry. This was considered natural, perhaps, not only because of the wide divergence in selling methods employed by different manufacturers but also because of the far-reaching changes that have been and are still taking place in the channels of distribution in many fields.

The ratio of advertising expenditures to sales volume, in particular, varied widely in some cases between different companies in the same group as well as between groups.

While the figures are broken down in the report to a considerable degree, no attempt has been made therein to explain the reasons for the variations or to arrive at any conclusions as to what relationship should exist between the cost of distribution and sales volume for any particular company or group of companies. The aim has been, rather, to present the facts as they exist in as clear and simple a manner as possible.

My purpose in presenting the charts and certain of the comments from the report is to illustrate by the use of actual figures that apparently simple conclusions in connection with the distribution costs cannot be drawn with any accuracy, for a perusal of the charts will reveal many results experienced were actually contrary to what one might ordinarily expect. There is, however, one definite conclusion, namely, that in the matter of distribution costs, the accountant cannot take anything for granted but must positively get down to cases. In other words, the responsibility of the cost accountant in "pricing for profit," where distribution is a factor, should neither be overlooked nor underestimated.

Forecasting and Budgetary Control

Forecasting and budgetary control properly functioning throughout an organization constitute the very keystone of present-day progressive management. The day is long past when a manufacturer could go out and obtain all the raw materials he required to fill his plant to capacity and dispose of the product profitably and without difficulty. Intense competition has made it increasingly difficult for even the most efficient and well directed companies to operate at a reasonable margin of profit. Concerns with advanced

ideas and well rounded operating plans, embracing well balanced and well regulated capital investment, up-to-date methods and tightly controlled costs of manufacture, together with a nicely judged program of distribution, find unremitting attention to each of these phases essential to continued operation on a satisfactory basis.

Forecasting and budgetary control should regulate these phases in relation to sales requirements and changes in the sales program and, to be a reliable test, should be so devised as to permit of rapid and flexible adjustment throughout the business. After all, sales represent the bottle-neck of a business and all effort within the business should be gauged and planned in relation thereto. To disregard so important a feature is to risk substantial losses from an unduly heavy investment in inventories and obsolescence of heavily stocked lines.

It is essential, therefore, that market research in the forecasting of sales be directed at the outset not only to quantities but also with regard to the risk of products losing their appeal through displacement by more up-to-date and more stylish competitive lines. With this in mind, it should be recalled that basing forecasts on statistics of former sales in many cases might be quite misleading in its conclusions and disastrous in results. Constructive forecasting should replace deductive reasoning from premises no longer valid. Our efforts should be directed to devising and testing dependable ways of constantly determining the market and of accurate planning to supply it. Specifically, I may mention the necessity of maintaining product research and experimental work in order that improved products may be ready to place on the market when existing ones begin to lose their appeal and—particularly relevant to this topic—the consideration of the necessity of providing for the cost of such effort in pricing for profit. This is to say—ignoring for the time being the controversial academic principles involved—products salable now should desirably contain in their sales prices sufficient provision to cover the expense of continued research for product betterment.

Well, what has the cost accountant to do with all this? We might as well inquire what a pilot has to do with the course of a ship when it is precisely his business to chart the course. But, dropping metaphor, I think that in painstaking forecasting and budgetary control there is available the means of levelling out more and more the peaks and valleys of commercial activities, and de-

creasing the number of business casualties. This is the negative side; on the positive, it is a distinct factor productive of the greater profit of planned activities.

Again, profitable business in the future will be based, more and more, upon coordination within the industry regarding the dissemination and coordination of ideas and knowledge relating to markets, merchandising, distribution, sales forecasting, commercial and industrial research, production planning, expense control through budgets, analyses and policies of corporate management.

Moreover, the fact that the market for any industry as a whole has fairly determinable limitations might be more widely recognized. Particularly is this the case if the possibilities, the realities, of the American markets are given proper recognition in relation to the overly regarded foreign potential markets. I will venture the opinion that the possibilities of foreign trade for American industry at large have received more attention than they merited. In the first place, while we recognize the progressively low costs resultant from advanced technological processes and mass production, we should also recognize that competing nations have not been slow to copy American equipment and methods. Thus, with their relatively low wages, they have rapidly become vigorous competitors and the chances are that this source of competition is more likely to be intensified than relaxed. Whether they copy or whether they buy American equipment the result will be the same. Secondly, national political expediency, which finds expression in tariff barriers, exchange restrictions and the like, must be a barrier to expanding foreign trade and finally, international competition is quite as vigorous as is domestic competition.

The point I am trying to make is that knowledge of definitely profitable markets is the first requirement and it is in connection with the budgeting for the expense of development of these markets and of predetermining the costs of filling the demands of these definitely profitable markets that the cost accountant has a real responsibility. The so-called sales budget, set up on the basis of a previous month's sales plus any arbitrary increase the sales manager desires, is not a sales budget at all. Quite often it is only a shot in the dark as a means of spurring sales representatives to greater effort. And while these increases in sales quotas might be reasonably attainable by organizations having only a small proportion of the volume in their particular lines, it might be physically impossible of attainment to increase sales volume—say by only 10%—if

the organization setting the quota is a large selling factor in its market, unless accompanied by radical price adjustment. And the chances are that such effort would disrupt the whole market.

While the sales manager may have ideas of increasing sales volume the cost accountant should check the sources of anticipated increase to see that price policy is being protected, that "net" profits will ensue on the increased volume and that the budgets both for income and expense are set up on a satisfactory basis so that actual results may be properly compared with the budgets.

As a matter of fact, the profitable pricing of goods should be the first step in setting possible sales quotas and budgets—not setting the quota and then having recourse to "skinning" prices as a necessary aid in meeting the quota. In other words, "pricing for profit" is logically the first step in forecasting and budgetary control and hence production planning and manufacture.

How many sales managers consider the effect of meeting suddenly increased demand by the operation of a partial double shift with its duplication of overhead personnel? And yet, time and again, certain divisions of a factory have been, and are still run on a double shift to meet unexpected orders. Now, if such demand occurs in the thinly profit-margined lines, it is not hard to see that the increased sales may be productive of a "net" loss, or at any rate a matter of "swapping" dollars. The accountant, knowing the facts as to the effect of such occurrences in the accounts of the business, and having charge of the accumulation, presentation, analysis, and interpretation of the budgets and standards, can contribute materially to the setting of prices so that they are priced to yield a "net" profit in the final analysis.

To conclude with a brief summary of our consideration of pricing for profit, we may well affirm that the cost accountant can undoubtedly play an important part in any business which, unless it operates at a profit, is no longer a business, but a memory—just another industrial casualty.

The cost accountant is, in short, directly concerned with the product, not merely the sum, of business activities all of which have no other purpose than the realization of the fullest measure of profit—net profit. The business machine must be organized to fulfill its functions—all those functions coordinated by planned effort, and directed with the certainty of informed judgment—having in mind the ultimate purpose. Moreover, a business may be profitable but yet not realize its possibility for greater profit while,

on the other hand, if it be operated at a loss, through proper guidance the adverse results may be corrected.

A moment's reflection will show us that, as a matter of fact, the real capacity of a business as a profit-making activity is reflected in its accounts and the complementary statistical data, all of which it is the business of the cost accountant either to compile or to interpret and apply to particular cases. Plant organization, financial structure and related questions, sales and sales policies, costs and expenses are matters of which he has intimate knowledge, based on selection, comparison, and analysis, the utilization of which, in the direction I have endeavored to outline, may well be expected to result in prices properly established and thus in the realization of the maximum of profit.

CHAIRMAN MARSH: Thank you, Mr. Pierce. From the papers of this morning and this afternoon, you have probably observed that emphasis has been placed on the importance of the accounting officer in any business organization. He is becoming increasingly important. Considering the legislation of which you have heard so much today, it is probable that most of you and possibly all of you will soon be faced with the problem of pricing for profit. Hence, I should imagine there will be many questions you would like to ask these two gentlemen. We shall be very glad, therefore, to have the questions.

EDWARD B. MILLAR (*Control Manager, Mechanical Rubber Goods Division, United States Rubber Company, New York, N. Y.*): The subject, "Pricing for Profit," has in many respects presented a challenge to us to work out an economically sound basis for pricing because of our widely diversified products and methods of distribution.

We have worked out a pricing basis that appears to be sound economically as it includes a profit on the investment ordinarily employed in the production and distribution of the product. It automatically excludes charges on excess capacities and the costs of bigger and more expensive organizations than are required to produce at recent volumes and without writing off large amounts of capital assets to avoid depreciation charges.

We produce, roughly, 2,400 different items for stock. These represent less than 50% of the dollar production value and probably only 5 to 10% of the total number of different items produced during a year. The other production represents special items made to customers' specifications.

Now, as to the subject, "Pricing for Profit." First, it seemed proper to determine what would be a proper profit to be added to the total all-in cost of each item offered for sale, as the real reason for being in business is to make a profit on the capital investment. The idea of including a uniform per cent in the sales price of each article did not satisfy as that basis fails to take into account the amount of investment employed as an average in the production and sale of the different commodities. I believe it is essential to know the average investment employed in the production and sale of each commodity before it is possible to determine a proper profit to be added to the total all-in cost, consequently, we proceeded as follows:

First. We subdivided the net plant investment by departments; next, we prorated the net investment in buildings to departments on a floor space basis, then we prorated the net investment in mechanical shops, power plant and other service or common departments to the production departments on the basis of what their service to the latter would be at normal volume; then finally, by adding the direct investment and redistributed investment charges, we arrived at the total net plant investment for each production department.

Second. Having previously determined the normal capacity of each manufacturing department in man hours and units of production, we computed the standard cost of production at normal by multiplying the normal volume by the average standard cost per unit of production.

Third. To determine the average investment in accounts receivable for each commodity (assuming the terms to be 60 days net) we took twice the average monthly standard cost at normal volume and increased it by the per cent that the total all-in cost exceeded the standard cost. Some may say this doesn't represent the average accounts receivable. No, it doesn't; it only represents the investment in the accounts receivable. Any greater amount in accounts receivable represents the profit element.

Fourth. The average investment in finished goods inventories of each commodity was determined by dividing the total standard cost at normal volume by the number of finished goods turnovers that should occur on the basis of good merchandise control.

Fifth. The average investment in raw materials for each commodity was assumed to represent the material contents of the average monthly standard cost of sales at normal volume for a period corresponding to the average raw materials position maintained in stores by the purchasing department.

Sixth. The average investment in goods in process was assumed to be the material, labor and burden contents of the average monthly standard cost at normal volume multiplied by a factor equivalent to the average part of a month required in production.

Summary. Assume the investments have been determined for each commodity, as follows:

Net plant investment of the producing department		
Average investment in accounts receivable		
"	"	" finished goods inventory
"	"	" raw materials
"	"	" goods in process.

We have accounted for most of the assets in a business, excepting cash and deferred charges. The cash item, if properly employed, will earn a return on itself so that the only item excluded from our figures are the deferred charges, which are usually relatively unimportant.

Now, if we add an amount to the total all-in costs which will yield a proper return on the average investment by commodities as outlined above, a profit will be earned at normal volume to cover interest on borrowed money, interest on funded debts, and a return on the investment, capital stock and surplus. A lesser amount will be earned at subnormal volumes because the full investment will not be employed.

It is commonly regarded that a conservative investment should yield 5 or 6% per annum to the investor and that a manufacturing venture, because of its hazards and uncertainties, should earn two and one-half or three times that amount, say 15%.

Let us assume 15% to be the profit desired. After computing the amount of profit desired on the total average investment of each commodity and then by determining what per cent that profit is of the total standard cost at the designated volume (normal or some other per cent of capacity) we ascertain the profit per cent of standard cost to be included in the amount determined to be a fair and proper selling price.

Having the standard cost of an article, the current actual cost is computed through the application of ratios which reflect the variations in the prices of materials from standard prices and the variations in costs due to operating efficiencies, but the volume variation factor is excluded. To this adjusted cost is added a provision for transportation outward, warehouse and shipping costs, and the

provision for profit outlined above as a per cent of the standard cost of the article. The total of these items—current manufacturing cost, transportation outward, warehouse and shipping and profit—is then divided by that per cent of the sales dollar that will remain after providing for cash and other discounts, advertising, selling and administrative expenses and provision for adjustments. The resulting figure, after pointing off two places to represent multiplication by 100, constitutes a fair sales price for the article. For example:

Assume—Current manufacturing cost to be.....	\$3.25
Transportation outward.....	.60
Warehousing and shipping.....	.60
Profit (15% on average investment) computed as a per cent of standard cost ...	.80
	<hr/>
	\$5.25

Assume—Allowance for cash and other discounts, advertising, selling and administrative expense, etc., to represent 25% of each sales dollar; then \$5.25 should be divided by $.75 = .07 \times 100 = \$7.00$, as a fair sales price.

NOTE.—The per cent of the sales dollar required for discounts, selling and administrative expenses and provision for adjustments, varies with the type of product and the method of distribution.

Since the amount of profit provided for has a direct bearing on the break-even point, and since the latter in turn may influence the amount of profit that one may desire to provide for, I submit the following simple formula for determining, without the use of graphs, the “break-even” point or the amount of profit required to break even at a designated volume:

$$\text{Break-even point} = \frac{\text{Fixed expenses}}{\text{Fixed expenses plus profit at normal volume}}$$

(Stated in per cent of capacity)

Therefore, having the amount of fixed expenses and the desired profit, one can readily compute the “break-even” point; or having the amount of fixed expenses and a designated “break-even” point, one can readily compute the required amount of profit.

In conclusion, let me repeat that the basis of arriving at selling prices as described above seems to be sound economically as it includes a profit on the investment ordinarily employed in the production and distribution of the product; it automatically excludes charges on excess capacities and excess costs due to organizations that are inflexible to varying volumes of production; and it provides

the basis for establishing definite profit goals at predetermined volumes.

H. A. GIDDINGS (*Auditor, Wayne Lumber and Manufacturing Co., Waynesboro, Va.*): On that excellent paper prepared by Mr. Pierce, I should like to ask a question. The effect of this Industrial Recovery Act, as it appears to me, will be to intensify the competition for eliminating internal waste. If that premise is true, after wage levels are established and selling prices are established, then it becomes a matter of more closely examining that point in between which covers the various indirect expenses of business operation. Is that admitted as a premise?

MR. PIERCE: Yes.

MR. GIDDINGS: That would be that part not covered in the regulatory feature. Then, does not that indicate that it would offer a greater possibility and a closer scrutinization of the indirect operating expenses of the business, such as would be brought out, and you mentioned it quite thoroughly, in standard costs? Would not that emphasize that particular feature of writing out those indirect expenses more than perhaps we have had in any previous years? It seems as if that opportunity for the cost accountant would be greatly enhanced on account of this pending legislation.

MR. PIERCE: I agree with everything you say. I did not bring that out because manufacturing costs have been given so very much attention that I did not consider it desirable to stress that particular feature. There are several other things, also, that you might go after, such as incentives and the probable utilization of empty plants or excess facilities, and so on.

MR. GIDDINGS: Yes. The point I meant to emphasize was, isn't that going to be exceedingly vital and important during the period in which we are under this form of regulation? With two elements in the total effects, that part which more generally lends itself to examination, scrutinization, will come in for a far closer examination, won't it?

MR. PIERCE: I do not agree with you; because we did not do a thing last year as well as we might, is not of itself any reason why we should do it any better next year. We should have done it right last year.

I will say this. In the final result, where your sales prices may be subject to some possible regulation, and your methods of costing may also be subject to some regulation, the fellow who does the job inside better than his competitor, is naturally going to benefit. That is about all I can say regarding your suggestion.

O. W. HILBERT (*Budget Director, Corning Glass Works, Corning, N. Y.*): We all agree that we must price for profit in order to exist, in the long run, but the question is, how are you going to do it? When commodity prices are going down, you must necessarily follow them to a certain extent, if not absolutely. Is there any logic in having your own prices follow general commodity prices so that in a period of prosperity you might build up a reserve by increasing your prices above what you normally would, and use that reserve to lower your prices beyond your profitable point in a period like we have just been passing through?

MR. PIERCE: As a matter of fact, the crux of the question lies in how a company will compute its own particular profit element. As I brought out in the reading of my paper, it may pay absolutely no attention to invested capital. It may determine its profit on the cost of material, labor and overhead and the allowance for overhead may be on the basis of normal overhead or actual overhead.

The structure of price setting, of course, is so varied that I could not recommend any particular one as being the most desirable to follow. Then, of course, you are faced at all times with the barrier of competitive prices. If your competitor underbids you, nothing you do in your accounting is going to help you very much. You either take the business with its profit or loss as the case may be, or you leave it.

MR. HILBERT: Isn't it true that we know very little about the structure of pricing? We have had a great many discussions. We all agree that we must have a profitable price. However, in an industry that has more than one particular line of products, varied lines of products, and manufactures in different ways, it is very often true that you have to price different articles in different ways, largely because of the competitive problem. I think we have had too little of how the structure of pricing should be set up.

CHAIRMAN MARSH: That is one of the reasons for the National Industrial Recovery Act.

MR. MORRIS KNAPP: There is a theory of pricing by which the mark-up is based on the conversion or fabrication costs, leaving the cost of material out.

MR. PIERCE: That system is followed by many concerns all over the country and is recommended by a number of industrial engineers. In other words, you have the alternative of basing your profit on the total fabricating costs, including cost of raw material, whereas in other cases you leave out the cost of material in the determination of the profit element, and add to the sum of the other elements the actual cost of the material and sometimes an additional charge to cover the handling of the material.

As I say, I cannot recommend any particular way of handling the price structure. It is more or less a case of what has been developed within an industry, and the particular economic conditions confronting us at the moment. Certain companies have developed a better pricing technique than others and this has been reflected in their profit and loss accounts.

MR. KNAPP: As I see it, there are three prices. There must be somewhere a theoretically correct price. Every company has a price it wants to get and a price it can get. It seems to me with standard costs in mind, eventually we are tending to where we are going to have a standard price, whether we can obtain it from the customer or not.

MR. PIERCE: That may be true, but what are you going to do about standardizing equipment between competitors? Then you also have the economic fact to face of the locale of a company. It may be better situated to receive the raw material, or from the standpoint of distribution. That is what is going to make this National Recovery Act control so very interesting. They are going to have to reconcile so many widely varying viewpoints and methods of treatment. Even on uniform systems of accounting, wide variations are developed. They have been in several systems that I know of. The fact that we use a uniform cost system is not necessarily going to be the answer to this at all. For instance, how are you going to reconcile the company that wrote down its book values by 50% some time during last year, and now charges into its operating account depreciation based on diminished value, as against a company that did not do that? Again, a company may have been established for quite a considerable time and may have built its plants and

acquired its equipment at very low cost, years and years ago. If they have been in business sufficiently long, they probably do not have very much depreciation to write off, anyway. Their lapsed properties may comprise quite a large percentage of their investment in property.

MR. PAGET: It is generally recognized that the industrial machinery in America is over-built. How high must the price level be in order that everybody shall make a profit?

MR. PIERCE: Are you telling me or asking me?

CHAIRMAN MARSH: How high is up?

MR. PAGET: That's it.

R. O. HILL (*Assistant Treasurer, Porcelain Enamel and Manufacturing Co., Baltimore, Md.*): Mr. Pierce mentioned research and development expense. I should like to ask if he will give us his recommendation as to the best method of handling that expense at the present time, either as a burden on current sales or surplus charge, or something, and what can be judged as a reasonable appropriation for such expense?

MR. PIERCE: My own opinion is that new development expense is not a charge to operating burden for the current period. That is to say, I do not believe it should go into the overhead structure. I do think it is properly chargeable against profit and loss with full disclosure in the statement that it is so treated. I say that simply to take care of any losses which might develop, for instance, if the new product does not sell. The company might be faced with substantial losses at a later date, which it cannot afford to stand.

A. W. MARSHALL (*Cost Accountant, General Asphalt Co., Philadelphia, Pa.*): It seems to me that if a large portion of this development expense was expended in producing improvements which in turn reduced the cost, as they would of a particular product, that product in this particular case should stand that expense.

MR. PIERCE: I fully agree with you.

DR. CHARLES REITELL (*Director, Greater Pennsylvania Council, Harrisburg, Pa.*): I am disappointed this afternoon that

we have not been courageous enough, in either paper, to face the real difficulty in this matter of pricing. Mr. Pierce in an elegant manner has set before us the tools for an individual firm in determining and planning pricing for that company. However, the things that we should be concerned about are beyond the individual company, and are the things that make pricing extremely difficult.

We must give our attention to the fact that the individual firm must yield to the industry as a whole. Appalachian Coal, Inc., and Eastern Coal, Inc., are but vanguards of what we must expect in the near future. Activities under the new Industrial Recovery Act are bound to make pricing an extremely difficult problem.

In Russia it is comparatively easy to lay a complete pricing plan, because you do not have these competing industrial establishments nor changing consumer demands. You have a big boss at the top who cracks the whip and everybody obeys. They pretty much can tell the consumer whether to wear a red or a black shirt. That sort of control we do not have. I do not think we want it. If we do not want it, then we must take competition or a planned governmental control that is at the present a great experiment. Let us focus our cost and pricing attention on this new era—where planning is going to be extremely difficult, if possible at all.

No matter how fine an accounting tool for setting prices we have, even with standard costs for individual firms, we fail if we do not see the bigger picture and that is the type of accounting and pricing set-up that is needed for the new industrial day now dawning.

I should like to have Mr. Pierce comment on that, if he will.

MR. PIERCE: In my paper, I brought out this point: "Moreover, the fact that the market for any industry as a whole has fairly determinable limitations might be more widely recognized, particularly so in the case of domestic trade." I do not think anybody who talks about profit can ignore that feature.

As to how you are going to overcome it, whether the cost accountants are going to be the people who can do it or the stock owners of the several corporations, or state administrations or national administration, I do not know. It is a big job for all combined. The question is, can we get the selfishness out of the picture? The German cartel did not do it, and neither did the British "pool" or "ring."

CHAIRMAN MARSH: It seems to me we are possibly confused a little in connection with pricing. My understanding is we

are not attempting to fix uniform prices. The requirement is that you shall not be permitted to sell below costs.

DR. REITELL: I am afraid you do not see the picture.

CHAIRMAN MARSH: Don't ask me what cost is.

DR. REITELL: What I am trying to get at is, to fix prices for any individual firm so as to give it what it is entitled to, namely, satisfactory profit. And this cannot be accomplished simply by having fineness of accounting and budgetary tools within that firm because the thing that disrupts the situation is beyond the firm.

CHAIRMAN MARSH: I agree.

DR. REITELL: Then, what kind of tools must we have to fix prices in the line of this new industrial era that we are coming into, which I think we can certainly call a semi-planned economy?

CHAIRMAN MARSH: I fail to see why we cannot use the same kind of tools in an industry.

DR. REITELL: We can. I say we do not want to hear about standard costs in this or that particular firm. I should like to see them discussed for an industry, if you please. The Appalachian Coal, Inc., and the Eastern Coal, Inc., have gone ahead. They are three months ahead of the industrial reconstruction bill, simply because the Sherman Anti-Trust Law was thrown aside for the bituminous industry.

There we see difficult problems coming up in establishing prices that are entirely different from the type of price problem that Mr. Pierce talks about. Anyhow we will get to it tomorrow afternoon, when the Industrial Recovery Act is to be thrashed out.

CHAIRMAN MARSH: Right!

PROFESSOR NELSON: I thought for a moment when the gentleman from Harrisburg spoke about the two papers this afternoon that perhaps he had not heard mine read. I was born on a foggy morning and I have "mist" ever since, myself.

However, the mechanics of the National Industrial Recovery Act and the codes that will be developed for the particular industries will solve our problems, as far as the economic features are concerned. It is merely going to be the calling together of the individual organizations interested in a particular industry, and they

are going to work out, under control, their solution to their own problem. It is not a matter of accounting tools and all the other features of distribution and allocation; that, to me, is merely incidental.

It is a matter of dealing with something that is much greater in scope. That is, doing away with the nefarious practices that have developed. These are the things that have brought us where we are now, and it is going to call for our cooperation, your cooperative effort and my cooperative effort, and our faith in what they are doing in Washington. That is what is going to solve this thing and bring us out of the dilemma in which we now find ourselves. To me, it is very clear. I am for it, and so must you be, or else you are going to be back where you were three months ago.

H. L. WHITTIER (*Works Accountant, General Electric Co., Erie, Pa.*): I do not think my friend, Reitell, is at all foggy. I should like to develop his thought just one step further. I do not think it is simply a question of price fixing within an industry. It seems to me it is a question of price fixing between industries. It goes beyond a mere matter of price fixing for individuals in an industry. It goes on to competition between industries.

CHAIRMAN MARSH: I do not think any of us pretend that it is easy, but as Dr. Reitell said, we shall have that further explained tomorrow afternoon by Colonel Gaskill.

Are there any further questions? If not, the meeting will stand adjourned.

. . . The meeting adjourned at four-thirty o'clock. . . .

SESSION III

MUNICIPAL ACCOUNTING

WEDNESDAY MORNING, JUNE 14, 1933

CHARLES H. CORNELL, Controller

E. H. Clapp Rubber Company, Boston, Massachusetts
Chairman

GUSTAVE A. MOE has had a varied experience in the practical field of cost accounting as applied to construction, city government and industry. After completing his high school work, he took night courses at the University of Minnesota in plan reading, estimating, accounting, and cost accounting. For one year he worked with the Twin City Transit Lines of Minneapolis and St. Paul as cost accountant. He then had seven years' experience with the City of Minneapolis on large force account projects of waterworks pumping and purification plants as foreman, cost estimator and cost accountant. For one year he was with a contractor in Memphis, Tennessee, in charge of costs on the largest artesian water system in the world. He spent three and one-half years with the city controller of Minneapolis, installing and supervising a cost accounting system for all major city operating departments. Then for six months, Mr. Moe was employed by the Pillsbury Flour Mills Company in charge of the expense analysis division. For the past three years he has held the position of Chief Accountant for the International City Managers' Association and the Committee on Uniform Street and Sanitation Records, a division of the International Association of Public Works Officials, Chicago, Illinois. In this capacity Mr. Moe has made many installations of public works cost accounting in cities of all sizes in this country. Mr. Moe has been a member of N. A. C. A. since 1927, and in 1929-30 served on the Board of Directors of the Minneapolis Chapter.

ARTHUR A. O'SHEA attended Harvard University and Suffolk Law School. He is a member of the Massachusetts Bar. For six months he was with the Zain Advertising System, where he promoted a broad advertising campaign for twenty-four New England manufacturers. He was with Bird & Son., Inc., of East Walpole, Massachusetts, for five years and there obtained varied experience in sales department organization and costs, national and trade paper advertising, foreign exports, and departmental credit approval, as well as manufacturing schedules and planning. For the past eight years Mr. O'Shea has been associated with the Town of Brookline as Cost Accountant. In this position he specializes in costing for the Highway, Forestry, Garbage, and Sewer Departments.

MUNICIPAL ACCOUNTING

PRESIDENT BULLIS: Yesterday we heard about certain principles to be followed in the management of private business enterprises, and this morning we are to have discussions with respect to the principles of municipal accounting. Some of the accounting systems of our cities and counties are monuments of how it should not be done. The two outstanding leaders in municipal accounting who are on the program this forenoon will tell us how it should be done.

We, as accountants, should not limit our practice to the four walls of our office, but we should take an active part in the business aspects of the political life of our communities.

We have with us as Chairman, Charles H. Cornell, Controller of E. H. Clapp Rubber Company of Boston, an Assistant Professor of Accounting at Boston University, a Certified Public Accountant, a former President of the Boston Chapter, and National Director in charge of Publicity. It gives me great pleasure to turn the chair over to Mr. Cornell.

CHAIRMAN CORNELL: Mr. President, Members and Guests: This session on municipal accounting was arranged by your committee as a result of several requests made to the National Board of Directors for a discussion of governmental accounting. During the past year, particularly, there seems to have been an increasing desire to know something about the ways in which the money which we pay as taxes is handled and accounted for.

There is a growing conviction, I think, that our units of government should keep their accounts and make their reports as correctly and as clearly as do our leading corporations. It is not the thought of your committee that the entire field of governmental accounting can be covered in one brief morning session, but it was thought that if we confined ourselves to the smaller units of government, the counties and cities, an interesting session might be arranged.

It is not within the scope of the session to discuss the question as to whether the cost of government is too great, as to whether more money is being spent than can be afforded. Our purpose is to look into the methods employed in accounting for that which we contribute to our local government.

The session will consist of two papers, and a discussion period afterward as usual. The first paper deals with the differences in

principles between municipal accounting and industrial accounting, and the second paper with the practical application of cost accounting to municipalities. After your committee had decided upon these two subjects, it had no particular difficulty in choosing the speakers. Both men are outstanding in their own part of our profession.

Our first speaker comes to us from the Middle West. He received his early education in Minneapolis and at the University of Minnesota. For a short time he was cost accountant for the Twin Cities Transit Lines, then for seven years with the city of Minneapolis as a foreman, cost estimator and cost accountant on vast projects, such as water works and purification plants.

He then spent a year at Memphis, Tenn., in charge of the costs of what is said to be the largest artesian water system in the world. Returning to Minneapolis, he installed and supervised a cost accounting system for the entire city.

His present connection is as chief accountant for the Committee on Uniform Street and Sanitation Records of the International Association of Public Works Officials. He is a member of our Minneapolis Chapter and a former director. I am glad of the opportunity to introduce to you Gustave A. Moe, who will speak to you on "The Principles of Municipal Accounting Compared with Those of Industrial Accounting." Mr. Moe.

THE PRINCIPLES OF MUNICIPAL ACCOUNTING COMPARED WITH INDUSTRIAL ACCOUNTING

GUSTAVE A. MOE

Chief Accountant

**International City Managers' Association and the Committee on Uniform Street
and Sanitation Records**

TO MY knowledge, this is the first time in the history of the National Association of Cost Accountants that the principles of governmental accounting have been presented at any of our national conferences. We are grateful to the program committee and the National Board of Directors for this opportunity. We hope to make this session so interesting that the future conferences will take up additional governmental accounting problems. Accounting has many applications in government which should be continually discussed with industrial and public accountants.

Municipal accountants appreciate the benefits they receive from membership in this Association. Indeed, many of the advancements made in national, state, and local governmental accounting can be credited in no small part to this contact with industrial and public accountants. In forecasting the future membership of the N. A. C. A., I predict there will be a large increase in the number of governmental accountants who will avail themselves of these opportunities.

Industrial and commercial business is operated primarily to produce profits for its owners. The success of its management is gauged according to the profits realized and the dividends paid to its stockholders. Government is conducted primarily to provide services according to the needs and demands of its citizens. The services provided usually include those activities which each community believes can be more effectively performed collectively than privately.

With declines in sales and commodity prices, industry is continually searching for new sources of profits, while the money saved by municipalities through reducing operating expenditures is rapidly consumed by the army of unemployed. Many cities are finding it difficult to provide adequate relief for the needy and still have sufficient funds to carry on the essential operating services rendered taxpayers. The situation is further aggravated by diminishing tax collections which have caused many cities to curtail and even eliminate some of the needful services in order to keep expenditures in line with income.

Production in industry is almost entirely regulated by anticipated sales. Adjustments for decreased sales can be made much easier in industry than can services be reduced in government. As a matter of fact, services in many divisions of government are increased when industry slows down. For example, expenditures for welfare services have increased as much as 400% in some localities as a consequence of the depression. Other services such as public works, recreation, education, and police have also increased while only a few services have decreased. Most of the services of government must continue in depressed as well as in prosperous times.

Public Administration

The citizen is a stockholder in the community in which he pays taxes. He is privileged to elect his representative in council or

other legislative body upon which he depends for the formulation of the policies of the municipal corporation. The citizen assumes that the legislative body will appoint competent administrative officials to carry out its policies.

In more than 400 cities in this country the council appoints a city manager. Under the council-manager plan, administrative planning is possible without lost motion. The city manager appoints the department heads and moulds the organization into a smooth running, well-balanced machine. The manager is responsible for the financial control, personnel administration, and the operating activities of the city.

Figure 1 illustrates the general type of line and staff organization employed in many council-manager cities. Some strong mayor cities are also organized along these lines. The staff functions are law, finance, personnel, and planning. Because most departments of a city continually depend upon the use of motor equipment, it is often a staff rather than a line service. Such organization provides proper control and satisfies the needs of all line departments.

The line service functions correspond in many respects to the several departments in industrial concerns. The seven departments listed on this chart illustrate the services which city managers consider the operating activities. Each of these activities is in charge of a single official. The operating and staff service heads comprise the cabinet of the city manager.

The main difference between the strong mayor plan and the council-manager plan, in so far as the administrator is concerned, is that the mayor is elected and is a member of the council while the city manager is not. In one case the administrator votes on policies, in the other he only carries out policies. The strong mayor plan in the hands of a real executive makes for good government. However, politics must not interfere with administration. Under the manager plan the spoils system is eliminated and in most cases employees hold their positions on the basis of ability which makes for a high standard of personal service.

The Director of Finance and His Position in the Organization

The wise municipal executive surrounds himself with competent and qualified department heads. City managers have selected high-grade accountants, many of them certified, and many from industry, to serve as finance directors. The administrator depends

Figure 1 - ORGANIZATION CHART
TYPICAL CITY MANAGER CITY
of 50,000 to 100,000 Inhabitants

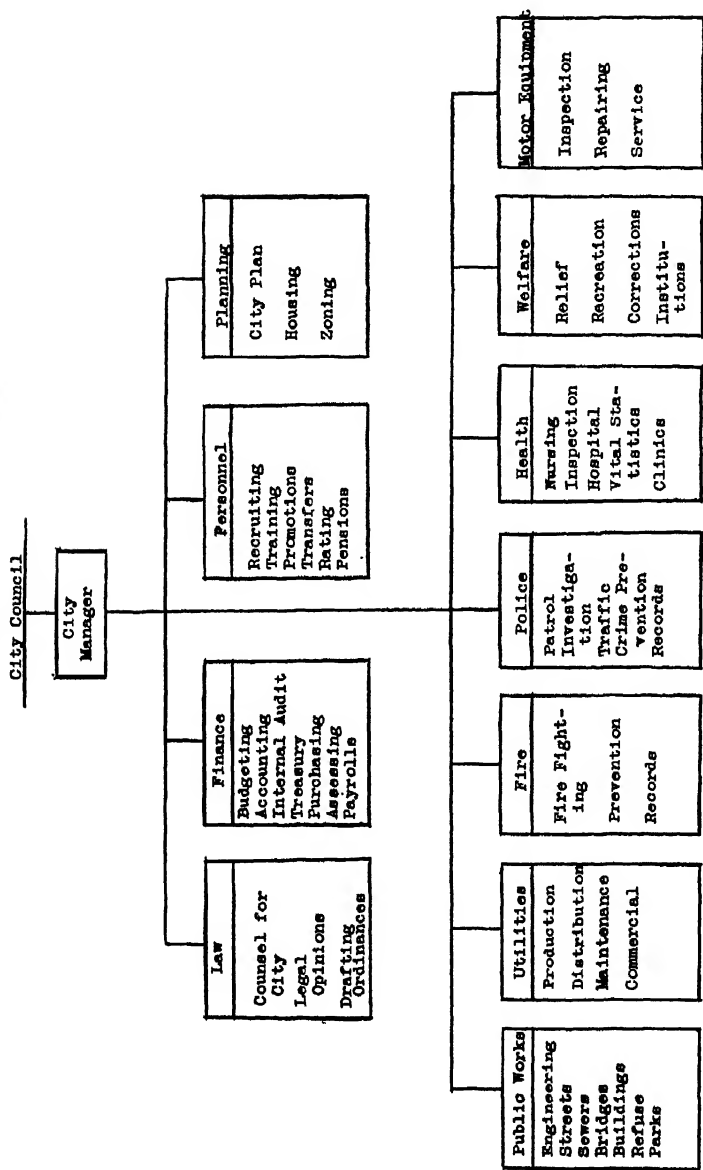


FIGURE 1

upon the services and information furnished by the finance department for his guidance in making decisions which affect the methods and practices of city business.

Figure 2 illustrates the organization of a finance department. As a staff agency to the city manager this department usually performs

ORGANIZATION CHART - DEPARTMENT OF FINANCE

TYPICAL ORGANIZATION EMPLOYED BY MANY SMALL CITIES

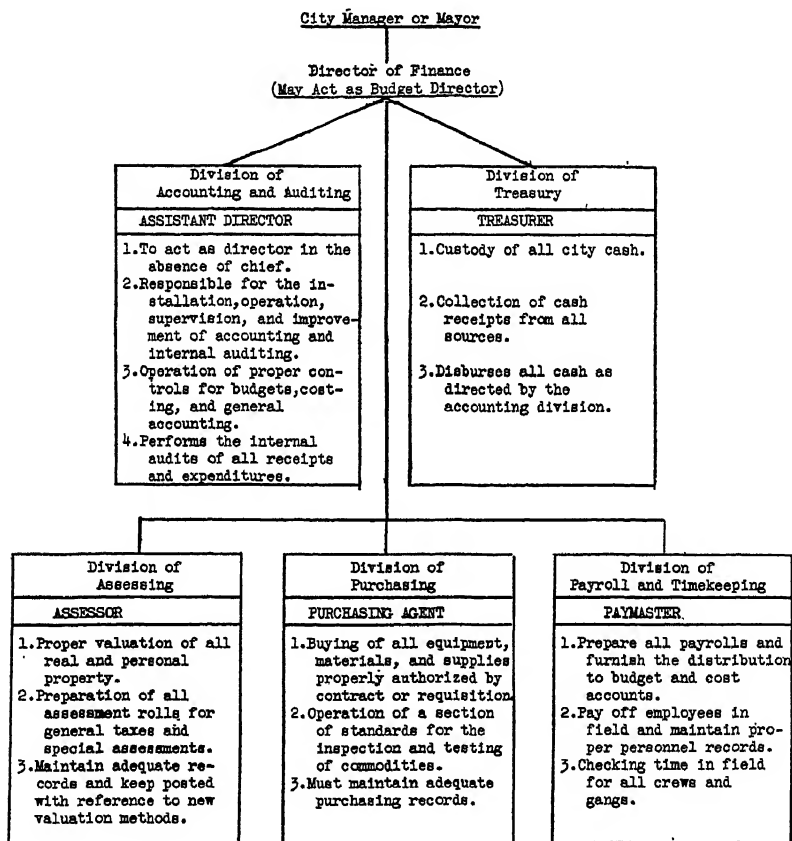


FIGURE 2

the functions of accounting, internal auditing, treasury, assessing, purchasing, and quite often payrolls and timekeeping.

The payrolls and timekeeping division is not commonly a division of the finance department. However, in small cities of 50,000 or less, it is common to find the payroll and timekeeping work is done

by the finance department. The director of finance always acts as the financial adviser to the city manager. The director is often the budget officer of the city. This is an important duty of the finance director in municipal government.

Some of you may be surprised to find purchasing and assessing under the department of finance. The duties of the assessor under this type of organization are to provide proper valuation for the purpose of taxation of real and personal property, preparation of assessment rolls for special assessments and the like, and to maintain adequate records. There is a close relationship between the tax assessment and billing in the assessor's office and the accounting division.

The purchasing agent really has a prominent position in this organization. If the city manager does not appoint the director of finance, it is quite important that the purchasing agent report directly to the city manager.

At past conferences we have heard a lot about the so-called super-controller in industry and while we are still looking at this chart, I should like to point out that in my opinion the director of finance has as broad powers in the conduct of city business as does the super-controller in industry.

Budgetary Control Procedure

The budget system is of greatest importance to governmental financial and accounting control. It is the medium by which the officials can gauge the income and outgo of city cash. When approved by council in the form of appropriations and revenue bills, the budget becomes a goal which the officials hope to attain during the fiscal period. Budgets are operated effectively and produce superior results in many cities. In these cities there is a high respect for the budgets and they are not political footballs. In fact, there are budgetary control systems in operation in some cities which would be a credit to any industry.

Municipal budget procedure had its beginning a long time ago. The larger cities, New York, Chicago, Philadelphia, Detroit, and Cleveland, were among the pioneers in this field. Since that time state and national government has instituted budget processes. The use of budget schemes has been expanded until today practically every political unit of any size operates under some type of budgetary control. Likewise, industry has also found value in the use of budgeting. Sound budgets are prepared for sales, production, and distribution and these are coordinated into well-balanced schemes.

A municipal budget is a complete plan for financing the city government during the fiscal period which it covers. It must show all of the anticipated expenditures of the various city departments, boards, or other units irrespective of whether such expenditures are for current expenses, capital outlay, or debt payment. On the income side, the budget sets forth the total anticipated means for financing the proposed expenditures, striking a balance between income and outgo for the fiscal year.

The expenditures proposed in most city budgets have been based to a large extent upon similar expenditures of previous years or upon the anticipated income for the budget year. Obviously, looking back at past years and employing what might be called "historical budgeting" is not the proper way to prepare expenditure estimates. Instead, comprehensive work programs should be developed and the budgetary requirements based upon these programs. The budget therefore merely provides the financial means for carrying the work program into execution.

To illustrate just how a municipal budget is prepared, the steps required and a brief explanation of each is given. This procedure is applicable in small as well as large cities. The steps required in the preparation and execution of a financial budget are:

- (1) Calculating the detailed expenditures, i.e., the personnel, contractual services, commodities, equipment use, etc., that will be required to execute the work program.
- (2) Forecasting the city's unadjustable income and determining the amount which must be raised by adjustable taxes.
- (3) Summarizing the detailed estimates of expenditures and income by appropriate budget classifications, thereby showing a comprehensive picture of the year's expenditures and means of financing.
- (4) Presenting the budget and work program summaries to the council, together with an appropriation ordinance and a budget message which describes all major proposals and authorizing of expenditures by the council. This step includes the holding of a public hearing to discuss the budget and proposed work, and the passing of the appropriation ordinance by the council.
- (5) Executing the budget. After appropriations have been made and the final work program established, officials are faced with the task of collecting the revenues set forth in the budget and of living within the limits of the appropriations.

Detailed estimates of expenditures are filled out for each fund of the city by department heads after they have completed their work programs. These expenditure estimates transfer the work to be done, as listed on the work programs, into the money needed for supervision, labor, materials, supplies, telephone, light, power, equipment, etc. A schedule is prepared for each major activity. The accounting division of the finance department furnishes the actual expenditures and encumbrances of the current year to the date. These data are usually compiled about three months in advance of the forthcoming period. With this information at hand the department head estimates how much he will have to spend by the end of the current fiscal year. This process affords an opportunity to revise the budget for the balance of the year and also produces the figures to guide the official in estimating the needs for the next year.

At this point the operating official obtains from the purchasing agent all available information as to possible changes in price levels of the commodities which his department consumes. Anticipated changes in wage rates are carefully considered and the necessary adjustments made. Rental rates used to charge for equipment service are checked and revised in the light of past experience. Finally, the operating official submits the work program and expenditure estimates to the budget officer.

For the second step, the budget officer also receives the estimated receipts from departments which carry on services that produce direct revenues. However, the major portion of the anticipated revenue is estimated by the budget officer. Once the services to be rendered are decided upon, the tax rate becomes the adjustable factor. If the amount of service requires a higher tax rate than is feasible, the amount of service and the corresponding expenditure estimates must be reduced.

The third step is made when the budget officer summarizes all the detailed expenditure and revenue estimates for the entire city into a comprehensive picture of the year's anticipated expenditures and means of financing. To do this the budget officer must mold the expenditure estimates of departments together with all estimates of income into a balanced budget. This task requires considerable labor, knowledge of departmental operations, and appreciation of sound budgeting methods. It illustrates the need of a budget officer who will not only do this job but also keep constantly in touch with income and departmental expenditures during the year.

The fourth step is to present the budget and work program to the legislative body. After the mayor, city manager, or other budget authority has reviewed the budget and given final approval to the departmental estimates and work programs, it is time for council action. This action consists of reviewing the plans for operating the city departments as foretold by the budget and work program, and of appropriating funds for such portions of these plans as it approves.

The work program statements will inform the council of the amount of work or service for each city activity, unit cost standards for doing such work, the total cost, and how the new program and costs differ from those of past years. A budget message explains the major features of the entire budget and work plan.

If the council wishes to review the detailed information on which the appropriation schedule and the summary of the work programs are based, then the mayor or city manager may produce the detailed expenditure and work program schedules. These detailed schedules, however, are primarily work sheets and are the direct concern of the chief administrative officer and his department heads. The council should not change particular items unless they directly represent a service or improvement to the city. For example, if the total appropriations requested for any service are higher than the council believes proper, then the council should indicate what particular services it prefers curtailed.

With respect to the public works program, the council should decide the particular kind of streets, routes, or jobs on which it wishes service reduced. On the other hand, the council may believe that additional services not in the program should be undertaken or that certain services should not be performed by the city at all. These questions are concerned with policies and are properly a matter for council action.

Lump sum appropriations allow administrative officials to employ labor, equipment, and materials in the most effective combination during the course of the year. Whether one more or one less street laborer, or whether two tons more or less of asphalt are needed is a matter which the department should decide, and which frequently cannot be decided until sometime later in the year. Such questions are administrative and do not belong in the sphere of council action.

The granting of such leeway does not mean that the mayor, city manager, or department heads are given too much freedom from council control. Through the use of work and expenditure programs, cost and general accounting systems, the council is able to

hold them even more responsible for the performance of their duties than has been possible under any form of detailed appropriations. If officials do not abide by the work program or do not perform the work at the cost promised, then the council has a real basis for action. A control over individual purchases of personal services, materials and supplies, and equipment will *not* give the council such a control; it will only inject the council into matters which are purely of an administrative nature.

The fifth step is the execution of the budget. Once appropriations have been made and the work program agreed upon, city officials are faced with the problem of living within the allowances and of performing the services in the program. It is at this point that the general and cost accounting systems step into the picture. Sound accounting principles must be followed which will fix the responsibility for spending funds, which will tell how actual performance compares with the work program, and which will provide the operating officials with information to aid them in determining the most effective lines of action.

Planning, as well as day-to-day control over operating activities, is essential to sound management. The control is equally as important as the plan. Sound planning in industry means more profits; in government it means lower costs. If the economic changes shall be correctly met, all pertinent facts must be available. The course which any business will pursue must be well planned and carefully charted to carry it along safely whether the economic conditions are rough or calm. Accountants must be alert to the ever-changing conditions to be able to aid in steering the ship on a safe course.

Charting the course for a safe journey in business has placed great responsibilities on the shoulders of the accountant. But it has also given him new opportunities to demonstrate the influence of his particular abilities upon the success of management. Delivering on these responsibilities demands not only a keen appreciation of sound accounting principles, but also the exercising of wise and intelligent judgment as to the needs of management. The accountant should lead with information which will demand executive action rather than to follow requests for it.

The appropriations of a government must not be overexpended and may require reduction during the fiscal year to conform with revenues received. Not only should the accountant aid in the control over appropriations but he should operate an accounting

system which makes it possible to determine at any time during the year whether expenditures are being made at too great a rate. No matter how good the credit of a government is, it cannot afford to live beyond its means.

In other words, the rate of expenditure must be planned. Monthly allotments of expenditures are needed. These allotments are prepared by the department heads as soon as appropriations are granted. A distribution is made to the twelve months in the year according to purchases and work to be done in each month. These allotment estimates are provided not only for the department as a whole, but for each major activity. When completed they are forwarded to the mayor or city manager for approval and then to the department of finance for accounting purposes. In addition to controlling the rate of expenditures, these allotments aid city officials in planning the cash needs of the city and in balancing revenues against expenditures during the course of the year. A municipal budgetary control system is not complete unless it provides such an allotment plan.

The most important statement from the standpoint of expenditure control is the monthly statement of expenditures and allotment balances illustrated by Figure 3. This statement provides the basic information concerning expenditures for each department and activity of the city. It provides a comparison of actual expenditures with allotments, and it sets forth the original estimate for the coming month and the amount actually available. The amount actually available for the next month may be as originally planned if a department has lived within its means in the past or it will be decreased, as illustrated here, if they have overrun their past monthly allotments.

An orderly allotment of cash receipts is prepared in the same manner as the expenditure plan. Each month a comparative statement of cash receipts, as shown in Figure 4, is furnished the city manager or mayor for his guidance. Such a statement provides an analysis of receipts for the current month and accumulates them to the date of the report, and further indicates the balance due to meet the annual estimate. From this monthly statement the manager or mayor can tell which sources of revenue are meeting, or not meeting, the allotment plan. In other words, this statement provides the necessary control over receipts and points out when the expenditure program must be revised in order to keep outgo in line with income.

MONTHLY STATEMENT OF EXPENDITURES AND ALLOTMENT BALANCES
 City of For Month Ending... June 30 1933.

Activity and Object	Payments		Unpaid Commitments (Encumbrances) as of June 30	Total Payments and Commitments January 1 to June 30	Estimated Expenditures (Allotments) to June 30	Over or Under Run	Forecast	
	To June 1	During June					Original Estimate for July (10)	Actual Available for July (11)
(1)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(11)
Street Maintenance	57,000	16,000	10,200	300	26,500	-500	30,500	11,500
Salaries & Wages	28,000	7,500	4,200		11,700	700	16,500	4,300
Contractual Services	7,000	2,000	1,000		3,000		4,000	1,000
Materials and Supplies	11,000	2,500	200		5,200	200	5,800	2,700
Current Charges	7,400	2,500	1,000		3,500		3,900	3,000
Properties	3,600	1,500	100		3,100		500	500
Refuse Collection	60,000	27,000	5,100	200	32,300	-300	27,700	4,700
Salaries & Wages	32,000	12,500	3,600		16,100	-100	15,900	3,500
Contractual Services	200	85	15		100		100	15

Explanation: The information on this statement is essential for budgetary or expenditure control. It gives an analysis of payments and outstanding commitments for each division or activity of the city subdivided by object of expenditure. The preparation of this statement requires the allotment of appropriations at the beginning of the year according to the month in which expenditures are to be made. By comparing the total payments and commitments in column 6 with the accumulated allotments in column 7, the "over" or "under run" is obtained for column 8. The amount originally allotted for the next month appears in column 10, but column 11 shows the actual amount available according to results to date or to a reduced rate of city income. This statement has been prepared in cooperation with the Municipal Finance Officers' Association.

FIGURE 3

COMPARATIVE STATEMENT OF MONTHLY RECEIPTS

For Month Ending.....September 30,..... 1933

City of.....

Sources of Income by Funds	Total Estimated for 1933 (2)	This Month			Total to Date			Balance Still Due (9)
		Estimated Receipts (3)	Actual Receipts (4)	Over or Under Estimate (5)	Estimated Receipts (6)	Actual Receipts (7)	Over or Under Estimate (8)	
(1)								
<u>General Fund</u>								
Real Estate Taxes	200,000	5,000	6,000	* 1,000	130,000	126,000	4,000	74,000
Personal Property	30,000	12,000	12,100	* 100	29,000	28,000	1,000	2,000
Share of State Income Tax	12,000	200	100	100	6,500	6,400	100	5,600
Licenses	10,000	600	500	100	9,800	9,600	200	400
Etc.								
Sub Total	252,000	17,800	18,700	* 900	175,300	170,000	5,300	82,000
<u>Water Fund</u>								
Metered Sales	120,000	12,000	11,800	200	90,000	89,500	500	30,500
Other Receipts	5,000	500	400	100	3,800	3,500	300	1,500
Sub Total	125,000	12,500	12,200	300	93,800	93,000	800	32,000
<u>Electric Fund</u>								
Metered Sales	240,000	20,000	19,700	300	172,000	171,500	500	68,500
Other Receipts	5,000	500	550	* 50	3,600	3,500	100	1,500
Sub Total	245,000	20,500	20,250	250	175,600	175,000	600	70,000
<u>Highway Tax Fund</u>								
Share of Gas Tax	40,000	---	---	---	39,600	38,800	800	1,200
Etc.								

*Indicates receipts in excess of estimates.

Explanation: This statement shows how actual city receipts are holding up in comparison with estimates. When the budget is prepared, forecasts should be made of each kind of receipts for each month. Columns 3 and 6 on this statement show these estimates. Then by listing the actual receipts in columns 4 and 7, officials can quickly tell which sources of revenue are not meeting the forecasts. The statement thereby provides a control over receipts and points out when it is advisable to exercise greater collection efforts or to revise the expenditure program or to search for new kinds of revenue. This statement was prepared with the assistance of the Municipal Finance Officers' Association.

The administrator will need to know whether sufficient cash is being received to pay all city obligations as they come due. This and other similar questions can be answered by submitting a statement of cash position. Figure 5 illustrates a statement of cash by funds and banks and forecasts of cash position.

Accounting facts for administrative action must look to the future as well as the past. Past performance is of some value, but it requires foresight to obtain a plan of cash position for the future. This statement tells the cash on hand for the current month for each fund, shows the banks in which the money is on deposit, and finally it provides a forecast to the end of the fiscal year and tells the probable cash balance at the end of each quarterly period.

If this statement indicates an additional cash need at any time, it must be met by: (1) reducing proposed expenditures, (2) increasing income, or (3) borrowing. The first efforts should be directed toward adjusting the time of expenditures to the period in which cash will be available. On the other hand, a strong effort to collect taxes and other revenues may solve the problem. If, however, borrowing must be resorted to to relieve the shortage, loans should be obtained at the earliest possible date. Many cities are seriously handicapped in their budgetary control because the fiscal period of the city is not the same as the taxpaying period. These cities have the expense and inconvenience of borrowing money on short-term notes until the tax bills are paid.

A simple statement of taxes unpaid, as illustrated by Figure 6, indicates the necessity of constant effort to collect taxes. The comparative data will serve as a warning if tax collections are falling below previous levels. The burden of delinquency must be considered in forecasting the cash position or planning the new budget. This simply shows the monthly trend of collections of the past five years. Two types of revenue, real estate and personal property only, are given here. If the city has other sources of revenue like income taxes, vehicle taxes, etc., they can be added to this same statement.

General Accounting Practices Employed By Cities

A city must operate a sound general accounting system to provide the statements which have been described. In general, the accounting principles of these municipal systems follow many of the practices of industrial accounting. Accounting for the revenues of a city requires that the same basic principles be followed, although the

STATEMENT OF CASH ON HAND AND FORECAST OF CASH POSITION

City of..... For Month Ending June 30,.....1933.

RESULTS TO DATE AND FORECAST (1)	CITY FUNDS FOR ALL PURPOSES					Total (7)
	General (2)	Water (3)	Electric (4)	Highway Tax (5)	Assessments (6)	
Cash on Hand June 1, 1933	12,000	9,000	11,000	40,000	33,000	105,000
Add June Receipts	41,000	12,000	23,000	28,000	7,200	111,200
Deduct June Warrants Paid by Treasury	15,000	9,000	17,000	12,100	3,100	56,200
Cash on Hand June 30, 1933	38,000	12,000	17,000	55,900	37,100	160,000
Deposit in Bank A (Reconciled Cash Balance)			16,500	55,900	17,100	89,500
" " " " "	37,000	10,600			19,100	66,600
Cash in Treasurer's Office	1,000	1,400	500		1,000	3,900
Cash on Hand June 30, 1933	38,000	12,000	17,000	55,900	37,100	160,000
Forecast						
Estimated Receipts July 1 to September 30	12,000	36,000	68,000		3,600	119,600
Estimated Payments July 1 to September 30	61,000	39,000	72,000	31,700	30,000	233,700
Estimated Cash on Hand September 30, 1933	*11,000	9,000	13,000	24,200	10,700	45,900
Estimated Receipts October 1 to December 31	82,000	32,000	70,000	3,600	4,000	191,600
" " " " "	70,100	39,000	75,000	27,000	8,500	219,600
" " " " "	900	2,000	8,000	800	6,200	17,900

*Denotes Red Figure

Explanation: This statement shows the cash on hand by funds and depositories at the end of the current month. The forecasts of the receipts and payments for each subsequent quarter give the trend of future cash positions and finally indicate how the city will come out at the end of its fiscal year. These forecasts may be made for each month rather than quarters. This statement is indispensable in planning city cash needs and policies. The Municipal Finance Officers' Association assisted in the preparation of this statement.

FIGURE 5

MONTHLY STATEMENT OF UNPAID TAXES

City of

Month Ending .. September 30

19 33

REAL ESTATE TAXES							
Year	Amount of Levy	Amount Unpaid This Date	Monthly Trend of Collections in Per Cent of Amount Unpaid				Remarks
			Jan. 1	July 31	Aug. 31	Sept. 30	
1929	250,000	3,500	3.9	2.7	1.6	1.4	64.3
1930	240,000	4,080	4.6	3.3	2.5	1.7	63.5
1931	230,000	9,600	8.7	6.9	4.8	3.6	61.0
1932	215,000	12,900	10.4	8.7	7.1	6.0	59.7
1933	200,000	74,000	---	47.5	40.3	37.0	63.0
Totals		104,080					

Month Ending .. September 30

19 33

PERSONAL PROPERTY TAXES							
Year	Amount of Levy	Amount Unpaid This Date	Monthly Trend of Collections in Per Cent of Amount Paid				Remarks
			June	July	August	Sept.	
1929	20,000	120	1.1	1.0	0.8	0.6	Pamphlet on delinquent tax collection circulated in August by boy scouts.
1930	25,000	250	1.5	1.4	1.2	1.0	
1931	26,000	286	1.7	1.5	1.3	1.1	
1932	28,000	560	3.0	2.8	2.3	2.0	
1933	30,000	2,000	43.0	21.7	12.9	6.6	
Totals		3,216					

Explanation: This table illustrates the trend and exact status of tax payments for real estate and personal property. Even if a city does not collect its own taxes but receives settlements from the county this statement should be prepared so that the city may adjust its fiscal policies in the light of its share of receipts. In those cases, of collection figures will be obtained from county officials. This statement has been prepared with the assistance of the Municipal Finance Officers' Association.

FIGURE 6

methods can hardly be compared with practices in industry. The accounting for utility receipts is the same in principle whether municipally or privately owned, although quite different methods may be employed in each case. Most cities employ the standard utility accounting classification for their utilities.

Accounting for municipal expenditures embodies exactly the same principles as those employed in industry. The municipal expenditure dollar purchases services, commodities, plant, equipment, insurance, and other items which are not unlike the purchases from the expenditure dollar of industry. General accounting in both cases provides an analysis of these expenditures according to the accounting code desired in each case.

The general ledger is the heart of any accounting system. In municipal accounting it is the base upon which the system is built. All subsidiary records must be balanced with it once a month. Besides serving as a control, it provides information from which the balance sheets and financial statements are prepared. The accounts in the general ledger are grouped by funds and each group or fund is complete in itself. In each fund section there are accounts for cash, taxes, accounts receivable, accounts payable, etc., belonging to that fund.

Segregation of cash collections by funds is a principle of municipal finance and accounting. This principle is carried to extremes in many cases through no fault of the accountant. Money is often raised for specific purposes and the law makes it a misdemeanor to expend this cash for purposes other than that designated. Strict adherence to this principle is mandatory on the public official. Sometimes the necessity of keeping within the law greatly complicates the accounting requirements. To overcome these handicaps many cities employ revolving funds for stores and equipment operations. The use of these funds also helps to simplify the budgeting and to provide proper fiscal control over stores and equipment.

City administrators in a great many cities are now convinced of the value of stores procedures. They are absolutely essential to municipal cost accounting. Therefore, many cities now have sound stores accounting procedures and many have centralized store-houses. The stores procedure requires the establishment of stores ledgers and perpetual inventory schemes. These procedures correspond closely to those operated in industry, from which they were copied.

The handling of city-owned equipment raises many interesting and complex accounting problems. When cities operate equipment revolving funds the problems are greatly simplified. Under this plan the costs of replacements, operation, and maintenance of equipment are paid from the revolving fund. Rental rates either on an hourly or mileage basis are charged for the use of equipment. The rates charged cover all costs and the income received is credited to the revolving fund. New equipment (other than replacements) is purchased by special appropriation to the revolving fund.

Cost Accounting

Governmental cost accounting may be defined as the process of searching out all elements of cost required to attain a purpose, to complete a unit of work, to carry on an operation, or to complete a specific job. The principles involved follow closely the basic principles employed by industrial concerns. In fact, industry has led the way for municipal cost accountants. Cost accounting can be successfully applied to all public works activities, utilities, education, welfare, health, police, fire protection, recreation, and other activities, for which a work unit of measurement can be established.

Distinction can be made between the functions of general and cost accounting in municipal business the same as in industry. Each type of accounting has its own distinct function to perform but both are essential if proper financial and cost control are to be effected. A statement of true costs can not be drawn from the general accounting records, nor can a financial statement be drawn from a set of cost accounts. The financial records show the condition of cash income and outgo for a particular period and only incidentally show what work was actually done.

The purpose of municipal cost accounting is to provide the administrative officials with a real control over their activities. To this end the cost accounting system provides a regular method for compiling and analyzing work done and its cost. Thus, officials are better able to organize their work, to prepare a sound budget, and to determine whether work performed conforms with work planned. They can determine with certainty which methods or equipment are most effective or the cheapest. With these facilities at hand, the city's activities can be conducted on a more systematic basis, thus producing greater and better results for the money spent.

Before any city can decide upon the type of field reports needed, it is necessary to determine the activities or operations for which

performance and cost information will have value. In each city, the type of field reports needed depends upon the refinement of these operations. However, the principles of these reports are the same in all cities. Figure 7 illustrates graphically the flow of the field reports for a public works cost system. This chart shows how labor, materials, equipment, and overhead are recorded on the field

CHART ILLUSTRATING THE STEPS IN A PUBLIC WORKS COST ACCOUNTING SYSTEM

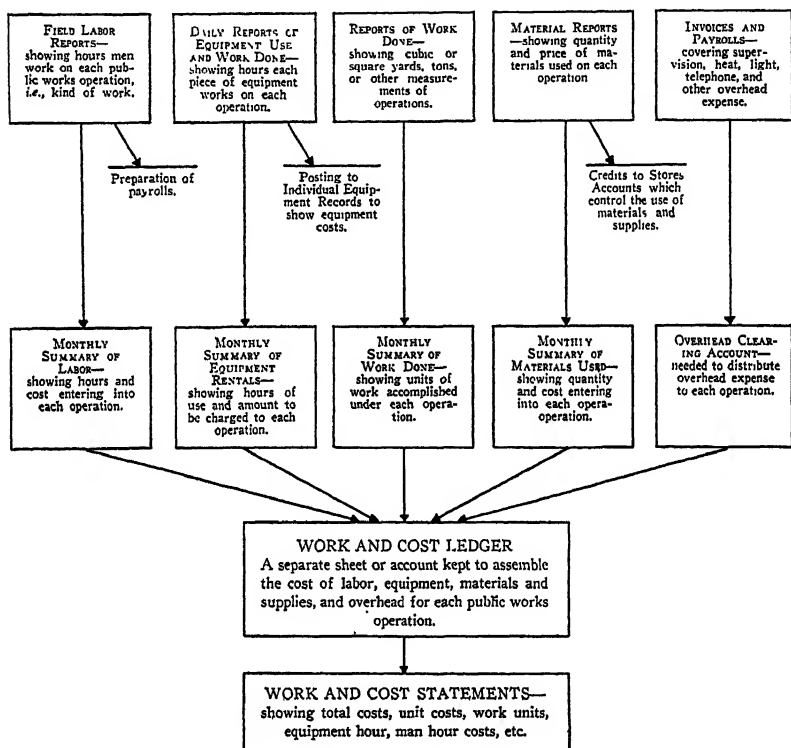


FIGURE 7

reports and ultimately find their way into the work and cost ledger, and finally into the work and cost statement.

This chart also indicates how the field reports for labor are employed for determining costs of each public works operation and as a basis for payrolls. Similarly, the equipment operators' daily reports are used in obtaining the operating costs of each piece of equipment and to summarize the equipment rental charges to work done for the

WORK AND COST LEDGER

Page No.

 Operation
 Control Account
 For Year Ending 19.....

 Unit Cost Standard per
 Unit Cost Standard per

MONTH	FIELD LABOR (3)		EQUIPMENT EXPENSE (3)		MATERIALS AND SUPPLIES (4)	(5)	(6)	(7)	OVERHEAD (8)	TOTAL COST (9)	WORK UNITS (10)		UNIT COSTS (11)		Per Man Hour (12)	Per Equip. Hour (13)
	Hours	Amount	Hours	Amount									Per	Per		
(1)					(4)	(5)	(6)	(7)	(8)	(9)			Per	Per		
Jan.																
Feb.																
Mar.																
April																
May																
June																
July																
Aug.																
Sept.																
Oct.																
Nov.																
Dec.																
Totals																

INSTRUCTIONS: A separate page of this Work and Cost Ledger will be maintained for each operation as listed in the Schedule of Cost Accounts. Columns 5, 6 and 7 are provided for other types of expenses which vary according to operation. The portion of the headings in columns 10 to 16 are left open for listing the work units for the operations covered.

STANDARD FORM OF THE COMMITTEE ON UNIFORM STREET AND SANITATION RECORDS

FIGURE 8

work and cost ledger. Materials used reports furnish the information for charging the operations on the work and cost ledger. These summaries of materials consumed are also used in crediting the stores accounts. Overhead is distributed monthly to the operations on the work and cost ledger.

The work and cost ledger, Figure 8, is employed for relating the total expense to the units of work done. A separate sheet is maintained for each operation for which costs are desired. This ledger accumulates the costs and work done for each operation for the entire year. Only monthly postings are made to this record from the summary or distribution sheets. This ledger supplies the information for the monthly work and cost statements and other analyses of public works operations. Standard ledger sheets are employed for stores, equipment, and overhead accounts. Stores inventory cards support the stores ledger.

You will notice there is a place for two unit cost standards and that is due to the fact that on certain types of work we can measure with two different units. For example, catch basins. We have the number of catch basins. We set up a unit cost standard per catch basin or per cubic yard removed. On machine sweeping, again, we have a cost of machine operation. We set up a unit cost standard for the sweeping and unit cost standard for the removal of the sweeping.

On machine sweeping, many cities also make another comparison, which is not shown here, and that is the relationship of the cubic yards removed to the cleaning miles swept. We can tell whether a city is doing too good a job, running the sweeper up and down the streets without picking up debris.

The individual equipment record, Figure 9, is a supplementary record to the equipment control account. One sheet of this record is set up for each piece of major equipment owned by the city or other unit of government. The top portion of Figure 9 provides the inventory or appraisal portion of the record and each year we make a new appraisal and set up the estimated yearly life of the equipment, estimated hours or miles it is going to run, and finally we arrive at a depreciation rate per hour for trucks, or per mile for passenger cars. This record requires only monthly posting from the summary sheets. The depreciation charge in column eight is obtained for this record by multiplying the hours used by the depreciation rate per hour. Depreciation so accumulated is credited to the property account. In some cities we have established re-

INDIVIDUAL EQUIPMENT RECORD

[illegible][illegible]STANDARD FORM OF THE COMMITTEE ON UNIFORM STREET AND SANITATION RECORDS
923 E 60TH ST., CHICAGO

FIGURE 9

STATEMENT OF EQUIPMENT OPERATIONS

City of For Month Ending September 30, 1933.

Equip- ment No.	Make	Capacity	Performance Measures					Costs				Remarks	
			Maximum Regular Hours (Less Time in Shop)	Actual Hours Used	Per Cent of Effi- ciency	Miles Run	Miles per Gal. of Gas	Main- tenance and Over- head	Depreci- ation	Quarterly Unit Costs			
										(4)	(5)		(6)	(7)	(8)	(9)	(10)	(11)	Total	Per Hour	Per Mile
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
21	--	1-1/2 Ton	624	483	77	1208	9.5	\$ 57.99	84.25	61.12	205.36	.42	.17
22		"	624	534	85	1317	8.9	48.52	78.40	49.67	276.59	.52	.21
23		"	520	480	92	1515	7.1	32.20	71.40	78.20	181.80	.37	.12
31		5 Ton	550	587	107	1290	4.9	34.40	115.00	116.30	425.70	.72	.33
32		5 "	390	320	82	860	3.8	13.40	22.20	143.60	490.20	1.51	.57
41		5 T. Hydr-	400	360	90			100.00	77.00	93.00	270.00	.75	
51		Flusher	600	614	102	1204	2.7	409.50	2900	300.00	999.50	1.51	.83
60		Sweeper	650	650	100	1312	2.8	30.00	425.36	300.00	1023.36	1.57	.78
Etc.													

Explanation: The purpose of this statement is to inform city officials of the amount of use and cost of operation of each piece of motor equipment. The figures in columns 4, 5, and 6 tell if the equipment is being used sufficiently. The remaining information is taken directly from the cost record of equipment. Standard Individual Equipment Records can be obtained at cost by writing the Committee on Uniform Street and Sanitation Records, 925 East 60th Street, Chicago. On monthly statements unit costs are of little value, but the information in columns 1 to 8 should be supplied.

FIGURE 10

placement reserves and in these cases credits are made to these accounts rather than the property accounts.

Figure 10 illustrates the type of monthly or quarterly report employed to show equipment operations. By seeing the end result on Form 10, pertinent information is immediately flashed to your minds. The maximum regular hours after deducting the time in the shop, holidays, etc., the maximum hours that a piece of equipment should operate is obtained, thus providing performance measures.

Figure 11 illustrates a section of a weekly cost report as prepared in Cincinnati by tabulating machines. This report shows the costs, man and equipment hours for each route and each district. Comparisons are not made on this form with previous periods as the department officials prefer to check these fluctuations with the district foremen.

The majority of cities, particularly of the 191 with a population of over 50,000 inhabitants, operate some type of manufacturing activity, such as asphalt plants, stone crushing plants, brick, pre-mix concrete, etc. The cost accounting principles applicable to industry can be employed in these plants almost without change or modification. Asphalt plants, for example, produce several kinds of products and each is sold to city appropriation, bond, or other accounts at cost. This requires costing by product and establishing selling prices. Sales are often made to outside contractors and then an additional charge for profit is included. Thus, these plants are in competition to a certain extent with private plants. However, cities aim to make these plants self-supporting units.

Standard Work Units Perfected

If measures of work done are to be reliable, they must be expressed in terms of standard units. The Committee on Uniform Street and Sanitation Records, through research and experimentation has developed such units for nation-wide use. Two examples are given here. In street cleaning, the "cleaning mile" signifies a lineal mile of streets cleaned once either by machine flushing, machine sweeping, broom gang, or beat patrol. Each cleaning method is measured separately, even though one method may supplement another. This does not mean that each method accomplishes the same results, only that a mile of streets has been covered. Thus, the cleaning work or the cost per cleaning mile of one method cannot be compared with another directly without considering the totally different type of work done under each method.

The "ton" unit is used in measuring the amount of garbage collected. Separate operation cost accounts are set up for collection, supplementary hauling, set out and set back, and for disposal

Department of Public Works
Division of Records

CITY OF CINCINNATI
REPORT OF WASTE COLLECTION WORK AND COSTS

Week Ending May 27 1933
For May

Route and District	Open- ing Account	Load and Receipt	HOURS (Expressed in Tons)	AMOUNT	SUB TOTALS	UNITS OF WORK (Expressed in Tons)	UNIT COST	REMARKS
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
31	11	100	60	235				
31	21	100	60	235				
31	20	100	2310	11548				
31	20	415	960	12960	25078	3720		
32	10	100	1350	6677				
32	10	415	440	5940				
32	10	100	2050	10146				
32	20	100	760	10260				
32	21	100	60	235	35593	3286		
41	10	100	890	4515				
41	10	403	480	3600				
41	10	100	1100	3450				
41	20	100	1100	3450				
41	20	403	460	3600				
41	21	100	665	3159	22511	2272		
42	10	403	450	3225				
42	10	100	900	4532				
42	10	100	1000	5000				
42	20	100	1000	5000				
42	20	403	450	3225				
42	21	100	615	2921	20982	1932		
43	10	415	240	3240				
43	10	100	860	4371				
43	10	100	240	3240				
43	20	100	320	1600				
43	21	100	470	2135	20817	1579		
44	10	100	965	4571				
44	21	100	480	2279				
44	10	415	480	6480				
44	20	100	1045	5225				
44	20	415	480	6480	26440	2511		
51	11	100	490	2328				
51	20	100	1390	6890				
51	20	403	480	3600				
51	21	100	680	3200				
51	10	100	1160	5853	25504	2175		
52	10	100	1320	6558				
52	10	403	480	3600				
52	10	100	600	3000				
52	20	100	1500	7500				
52	20	403	401	3000				
52	21	100	650	3250	27301	1987		
53	10	100	1920	9511				
53	10	403	640	4800				
53	10	404	10	60	14371	581		

FIGURE 11

by incineration, hog feeding, or dumping. In some cases it is possible also to employ ton-mile costs of refuse collection. This is especially true in the case of supplementary hauling from loading

stations to the point of disposal. Similar standard units of measurement are needed for all public works operations.

Municipal Unit Cost Standards versus Standard Costs

At the annual conference of the New York State Conference of Mayors and Other Public Officials a year ago, Dr. Charles Reitell said,

"The setting of standards of performance is by far the most difficult problem in municipal budgeting. In industry, it is a comparatively easy task to set up standards for the greater portion of its expenditures."

Dr. Reitell also suggests that,

"In government there are many functions which are not subject to the exact measurements that are found in factory operations. The influence of politics is also raised as well as the need for changing standards to meet the changes in municipal business."

This is true and accounts in part for the delay in setting up unit cost standards for governmental activities. However, we are able to establish standards for many public works operations and there are a large number of cities employing these standards in their work programs. Figure 12 is an illustration of a statement of work and costs which gives a comparison of actual costs with the predetermined unit cost standards.

A unit cost standard for municipal operations may be defined as the "minimum unit cost at which public works officials find they can perform a unit of their work, i. e., the minimum cost for cleaning a mile of streets by machine sweeping or machine flushing, the cost of repairing a square yard of asphalt street, the cost per ton for garbage collection and disposal, etc." By comparing the current actual unit costs with these standards, officials know at any time whether or not their goal is being attained. The variances between the unit cost standards and the actual costs become the danger signals for the operating officials. Thus they accomplish somewhat the same results as standard costs do in industry. These unit cost standards form a definite part of the municipal work program. Just as the number of work units in the work program tells how much work or service is going to be provided during the coming year, unit cost standards show just what the cost should be during the year.

Obviously, the present and past unit costs will form a basis for establishing the unit cost standards for the future, just as the fore-

COMPARATIVE STATEMENT OF WORK, COSTS, AND MAN HOURS FOR STREET CLEANING, REFUSE REMOVAL AND DISPOSAL										
For Month Ending <u>May 31</u> , 19 <u>33</u>										
City of	Operation (1)	Work Units (2)	Units of Work Done			Unit Cost			Total Cost	
			Actual Work Program Estimate (3)	Work Program Estimate (4)	Diff. (5)	Actual (6)	Unit Cost Std. (7)	Diff. (8)	Actual (9)	Work Program Estimate (10)
	Removal Garbage & Burnable Refuse	Tons	985	1,000	15	3.75	4.00	.25	3,698.71	4,000.00
	Garbage for Poor Farm	Tons	3.5	3.5	0	8.90	9.00	.10	31.15	31.50
	Dump Maintenance	Tons	1430	1,400	30	.22	.20	.02	321.12	280.00
	Machine Sweeping	Cleaning Miles	466	500	34	1.58	1.50	.08	736.12	750.00
	Sweepings Removal	Cubic Yds. Cleaning Miles	470	415	55	.48	.55	.07	226.73	224.00
	Cubic Yards Removed per Cleaning Mile		466	500	34	.49	.80	.31		
			1.0							
Operation	Work Units	Total Man Hours			Units per Man Hour			Units per Equip. Hour		
		Actual	Work Program Estimate	Diff.	Actual (6)	Unit Hr. Std. (7)	Diff. (8)	Actual (9)	Equip. Hour Standard	Diff.
Removal Garbage & Burnable Refuse	Tons	4503	4600	97	.21	.25	.04	.44	.42	.02
Garbage for Poor Farm	Tons	70	70		.05	.05		.10	.10	
Dump Maintenance	Cubic Yds.	408	400	8	2.41	2.50	.09			
Machine Sweeping	Cleaning Miles	466	450	16	.99	1.00	.01	1.13	1.50	.37
Sweepings Removal	Cubic Yds.	470	450	30	1.68	1.50	.18	4.16	4.00	.16

INSTRUCTIONS: The entries for the "actual" columns are obtained from the Work and Cost Ledger. The entries under work program estimate and unit standards are obtained from the work program. These standards represent the minimum unit cost at which the public works official can perform the work. Copies of this statement are submitted to the city manager, the director of public works, the superintendent of wastes, director of finance, and a copy posted on the garage bulletin board.

FIGURE 12

casts of work will rely upon the current and past years' programs. But the mere basing of cost standards upon past years' costs is not enough. There must be a thorough study of the amount of work planned for the coming year, of changes in wage rates, commodity price levels, the cost of operating equipment, or any change in the service which may affect the actual costs of doing work.

Unit cost standards for municipal work are purely local in their application and are different from standards furnished by other cities on account of differences in city conditions, methods of doing work, wage rates, and the like. For example, the unit cost standard for collecting a ton of garbage in one city is \$3.50; in another it might be \$4. In one city the length of haul to the point of disposal may be six miles, whereas in the other it may be only three miles. Raising such factors makes it easy to visualize why the same exact unit cost standard cannot be used by more than one city.

In municipal work it is believed that the man-hour and equipment-hour figures have more value for some types of work than unit cost figures. They can be calculated accurately on a daily or weekly basis which is not so easily done in the case of actual unit costs. The fact that labor and equipment expense generally represents from 70 to 85% of the total costs of many municipal activities emphasizes the importance of these hourly standards. Once adequate cost records are installed these production standards can be calculated as readily as the unit cost standards.

The statements illustrated throughout this discussion are only a few of the more important ones. Many other types of analyses are produced for governmental officials. In each case these reports are designed to fit the needs of the particular official. In governmental accounting it is necessary to report to the public and specially interested citizen groups.

Reporting to the public is one of the most important duties of any public official. The citizen stockholder is entitled to know all the facts about his government. Even the best governmental reporting is becoming stereotyped so that both public and governmental accountants have the opportunity of developing ingenious methods of making important facts stand out. We need to show the citizen stockholder that a large portion of the money paid in taxes goes into investments for public improvements which usually pay greater dividends than money invested in some private business. While cash dividends do not accrue to the citizen stockholder from taxes invested in municipal improvements the indirect value

of these investments should not be overlooked. Some cities follow the excellent practice of telling where the tax dollar is expended by summarizing the activities and tax distribution on the tax bill.

The citizen stockholder seldom appreciates his ownership in public improvements. He has an equity in the streets, sewers, public buildings, parks, schools, etc., owned by his municipal corporation. For example, the City of Chicago has a water system appraised at \$130,000,000, with a debt against it of about \$18,000,000 which indicates a citizen stockholder equity of over 86%. Municipal accountants need to make their accounting reports on a comparative basis to show the citizen stockholders the true value of their equity. Public accountants can assist in devising means of furnishing citizens better governmental reports. .

Encouraging Signs for the Future

There are many encouraging signs for the future progress of governmental cost accounting. Standards of measurements and costs are being developed and installed. Governmental officials are rapidly becoming cost minded. Associations of governmental accountants are making progress toward the adoption of better accounting methods. Certified public accountants are being recruited into governmental positions. Public accountants are co-operating in the development of regular audits and researchers in government are continually working with all public officials to improve practices and methods of furnishing better services to the citizens at the lowest possible cost.

The Committee on Uniform Street and Sanitation Records which represents the International Association of Public Works Officials, and ten other national organizations together with the International City Managers' Association, which it is my pleasure to represent here today, has made installations of cost accounting systems in many cities in this country. These installations were made in public works departments and cover all types of governmental services. The work is financed by the Julius Rosenwald Fund, the Spelman Fund, and The University of Chicago.

During the past three years about 8,000 manuals describing these installations have been prepared and distributed to city officials throughout this and other countries. Requests for these manuals continually come to our office, scattered from Siam to Greece and from Alaska to Buenos Aires. Over 100 cities have employed these manuals to install modern cost accounting practices

and to revise their systems. These manuals describe not only the accounts to be kept and the forms to be used in carrying out sound cost accounting principles, but also provide for complete work programs to aid in supporting budget requests.

Every city making installations of the cost accounting system recommended by the Committee has made large savings. Cincinnati, for example, saved \$65,000 in the garbage collection division alone during the first seven months of operating their costing system. Kenosha, Wis., was able to reduce their budget for public works \$5,000. Troy, N. Y., reduced their public works expenditures by using information from their cost system.

Further, in England, large savings have also resulted through municipal cost accounting. Mr. J. C. Dawes, Inspector of Cleansing, of the Ministry of Health, states a saving of \$3,000,000 a year can be attributed to the costing of cleansing departments throughout England.

Public opinion is forcing the adoption of sound policies in some respects. Wise, far-sighted public executives and administrators are not waiting to be forced into action by public opinion, but are sponsoring many movements for improvements in the administrative and accounting machinery. Public works officials are beginning to appreciate that sound organization, budgetary control, and cost accounting are essential to the proper management of city activities. Further, they realize the importance of uniform cost accounting in making reliable comparisons between cities. The value to public officials of being in a position to make comparisons with their neighbors is similar to that of trade associations in industry. They learn of practices and methods which have proved successful in other cities through uniform cost accounting. For years many of these officials have operated cost systems, but each has been different from that of the other. Through the work of this Committee, uniform systems are now being installed so that cities will benefit from these comparisons.

We recognize the task of developing a set of standards for the guidance of city administrative officials and while our accomplishments have been more particularly directed toward the improvement in public works departments, we are gradually paving the way for others to follow. We may still be in the horse-and-buggy stage in establishing our unit cost standards in the eyes of industry or commercial business, but we are progressing.

During the past summer, it was my privilege to visit about 80

cities, calling on over a hundred municipal officials. I found cities recruiting into municipal accounting and finance positions high-grade men, many of them certified public accountants, and many of them members of the N. A. C. A. For example, H. M. Kimpel, C. P. A., director of finance of Cleveland Heights, Ohio, formerly with the tool machine industry; Albert E. Neale, city auditor of Springfield, Mass., the only municipal accounting officer on our National Board; Charles Brown, Jr., city auditor of Niagara Falls, formerly vice president of a large cereal concern; Arthur O'Shea, cost accountant of Brookline, Mass.; and the city controller at Middletown, Conn., formerly with the rubber industry. Many more similar cases could be mentioned.

This demonstrates that city administrators appreciate competent finance and accounting officials. It is an indication that men with industrial experience have opportunities in government. It is a recognition well earned by certified public accountants. The recruiting of these men into government positions brings new ideas of accounting methods which are already helping in many ways to stimulate the old-timers in the service. And finally, the N. A. C. A., by making possible this session and many chapter meetings, has aided in an excellent way an interchange of ideas which is very helpful to municipal accountants.

Public accountants are improving their municipal auditing and reporting. They have many opportunities before them in the field of governmental accounting. The certified public accountants are cooperating in many ways toward the improvement of municipal financial reports. They are cooperating with the municipal finance officers in many cities. The New York State Society of Certified Public Accountants has passed a resolution requesting better municipal financial reports. If these accountants will rally to the support of those governmental accountants who are doing good work it will also aid in better municipal accounting.

Chicago is fast becoming the center of governmental research. Ten national associations of public officials and research agencies now have headquarters in the immediate vicinity of The University of Chicago. These are the Public Administration Clearing House, the Municipal Finance Officers' Association, the American Public Welfare Association, the International City Managers' Association, the United States Conference of Mayors, the American Legislators' Association, the American Municipal Association, the Bureau of Public Personnel Administration, the Governmental Research

Association, and the International Association of Public Works Officials.

The American Municipal Association represents, through state leagues of municipalities, almost all the cities and villages in 26 states and is vitally interested in improving accounting methods. The Municipal Finance Officers' Association is composed of national, state, and local finance and accounting officers. This association has a full-time director and a small staff which is engaged in assisting its members in many ways. A large program for the next few years has been developed, and, as it is completed, will fill many needs of its membership as well as other finance officers.

The Municipal Finance Officers' Association just published an Accounting Manual for Small Cities. This manual furnishes standard balance sheets, describes accounting statements, furnishes sample forms of the books to be kept, treats the subject of auditing and cost accounting and illustrates over one hundred accounting entries. The association is now preparing a manual of debt procedure. This manual will give a brief history of defaults, tell the social and economic factors involved in debt settlements, and state the practical questions a city must consider in negotiating with its creditors. The association is preparing standard specifications for municipal audits and soon it will prepare a report on the ethics of the municipal finance officer. The association hopes to reach standards of professional ethics similar to those attained in Great Britain.

During the past year, Mr. Donald C. Stone, research director of our staff, spent several months in England and on the continent consulting with the various finance officers. He reports that in England, the British Municipal Treasurers' Association has established high standards and qualifications for entrance into the municipal finance and accounting field. Considerable training and experience in municipal finance and accounting is necessary before examinations can be taken for a treasurer's position. It is difficult, and often impossible, for a person to obtain a municipal treasurer's position unless he has passed the examinations and met the qualifications of this Association.

While these are some of the encouraging signs of progress, there are many handicaps confronting the public official. Some of these problems or inconsistencies are not easily solved nor overcome. No industry could exist under similar conditions. No business would tolerate this kind of interference. Yet the public administra-

tor must carry on and do the best he can. I should like to quote from a bulletin prepared by the New York State Conference of Mayors and Other Public Officials.

"Bank and bond houses demand that municipalities reduce their expenses, BUT they insist that the municipalities pay a high rate of interest (in many instances as much as the law permits them to charge) on municipal bonds and certificates, and they either refuse to pay any interest or insist that the prevailing rate be reduced on daily bank balances.

"Coal dealers object to a tax on gasoline, BUT petition government to place a tax on fuel oil.

"Organized labor demands that local tax levies be reduced, BUT insists that municipalities adopt the five-day week and not reduce the labor wage scale.

"Local chambers of commerce and merchants demand that their municipalities reduce expenses, BUT they howl when a municipal purchasing official purchases a set of tires outside for half the price he would have had to pay to a local merchant.

"Newspapers pound the municipal administration editorially for a reduction of the city or village budgets, BUT they strenuously oppose any suggestion to reduce the amount of unnecessary election advertising or printing.

"Motorists insist that governments keep highways safe for traffic, well lighted, well paved, and clear of snow, BUT they object to a gasoline tax to help pay for these improvements and services.

"You-should-do-this-but-you-must-not-disturb-that, is as popular a pastime in government as contract bridge is in society. Advice on government is almost as inconsistent as radio advertising. The Sino-Japanese quarrel is puerile in comparison with the conflict of self-interest over tax reductions.

"Oh, for a genius who can devise some plan which will eliminate conflicts of self-interests in the administration of local government. And what a genius he would be!"

CHAIRMAN CORNELL: We are very grateful to Mr. Moe for taking some of the mystery out of municipal accounting. If there is one thing which these convention sessions should do for us, it is to broaden our viewpoint. Here we have a field which directly affects every taxpayer of the country, and a field which most of us in our daily work cannot have time to examine.

I do not doubt that there will be questions for Mr. Moe, but I should like to defer putting them for a few minutes.

Our second speaker is one of Boston Chapter's gifts to the National Association. He is a product of Harvard University and of the Suffolk Law School, Boston, and a member of the Massachusetts bar. He has had a broad and varied experience. He spent some time in the advertising field with the Zain Advertising System at Hartford, Conn.; five years with Bird & Son, Inc., at East Walpole, Mass., as assistant to the sales manager, and

liaison man between the sales, manufacturing, and planning departments.

His present connection is that of cost accountant for the town of Brookline, Mass., specializing particularly on the cost records of the Highway, Forestry, Garbage and Sewer Divisions.

I am sure you are going to enjoy hearing this paper on "The Practical Application of Cost Accounting to City and County Functions," by Arthur A. O'Shea. Mr. O'Shea.

PRACTICAL APPLICATION OF MUNICIPAL COST ACCOUNTING

ARTHUR A. O'SHEA

Cost Accountant

Town of Brookline, Massachusetts.

IT WOULD be difficult for me to adequately express my appreciation, not only for this cordial reception, but for the opportunity which the Association has given us for the presentation of the problems of the municipal cost accountant.

You have, as it were, taken us out of the classification of the "forgotten man," and it is my hope that the paper I shall present will assist in a small measure in determining the problems of municipal accounting so that we may bring substance from shadow, and that we may see light where obscure darkness has heretofore prevailed.

There is perhaps no subject which is more timely than that of municipal cost accounting when the universal plea seems to be for relief from the rising and excessive cost of government. Although municipal cost accounting is in its embryonic stages, it is nevertheless making definite headway in various municipalities throughout the country. Most public officials, in fact, are eager to cooperate in every way possible toward the reorganization of local government upon modern business principles.

Municipal corporations are comparable to many of our greatest private enterprises with respect to the capital investment and current operating expenses involved, and in most instances they far exceed them. The private corporation, however, is extremely cautious as to the character and individual capabilities and qualifications of the persons to whom its management is to be entrusted. This has not always been the case in municipal management, but during the

past few years there seems to be a growing tendency among citizens to interest themselves in the functions of local government and more particularly in the selection of the managers or directors of each municipality. There is a distinct realization that indifference in such matters results invariably in increased taxes and assessments. Whereas, with some care on his part the citizen can benefit greatly, for as in the case of a stockholder in a private corporation, he will receive quasi dividends which will be paid to him in the form of lower tax rates and a higher standard of municipal service.

Let us consider for a moment the management of a private industrial corporation. Here we find that extremely keen competition requires the following of costs very closely and frequently, for the variance of even a fraction of a cent in each progressive operation is of vital importance. A constant vigilance is maintained to determine all the leaks in order to insure any possible saving. On the other hand, municipalities often fail in the economical operation of their various departments, due to the absence or lack of sufficient detailed information. They have relied in many cases solely upon either budgets or a monthly comparison of expenditures to assure themselves that there was a sufficient balance left to cover operating expenses until the end of the fiscal year. If it was evident that deficits were to be incurred, it was only necessary to request an additional appropriation from the legislative body, which expense would invariably be assumed by the "good provider"—the tax payer.

Proper municipal management presupposes cost systems. Cost systems reveal corruption, and conversely, corruption stifles cost systems whenever possible. The degree of efficiency, then, is dependent upon the degree of political persuasion or tolerance in a given community.

The cost system should be as simple in its operation as possible and should never be subject to any justifiable criticism from those who complain of the high cost of cost accounting. In the case of municipal cost accounting, the problem presented is not as great as that experienced with private corporations for it is not essential to follow each operation with the same degree of caution as is necessary for the determination of selling prices to meet fluctuating and competitive markets. There may be a possible exception to this, however, in an instance where a municipality produces some of its own materials, whether it be trap rock or asphalt for road construction or possibly electric power. On the other hand, the private corporation keeps its cost system on a progressive basis, following the raw ma-

terial from the time it is delivered on the receiving floor and subsequently through each additional operation until it leaves the plant as a finished product, whereas, the municipality must concern itself with many unrelated services or functions. I do not wish to infer, however, that municipal cost accounting is of any less importance or advantage than private corporation cost accounting. The only difference is that where there is a lack of proper accounting in private competitive corporations, the firm does not realize sufficient profits to either meet competition or to carry on operations indefinitely. The usual penalty is that they are ultimately forced into receivership. The municipal corporation, however, is not so penalized and its shortcomings and inefficiencies are materially reflected in a higher tax rate. Very few manufacturers would organize for the express purpose of producing an extremely diversified line which would require different marketing channels and separate selling organizations. There is always the attempt to organize for a single purpose—mill production. Yet, consider for a moment the public works department of the municipality, which department, with the possible exception of the school department, expends the greatest portion of the tax income. Observe the diversified character of the following list which is but a partial tabulation of the various functions which must be followed:

- Cleaning and repairing of catch basins
- Cleaning and repairing mains
- Collection of paper
- Collection of ashes
- Collection of garbage
- Operation of incineration plants
- Maintenance of dumps
- Installation and maintenance of signs, guide boards, traffic lights, traffic lines, fences, etc.
- Street lighting
- Plowing and removal of snow
- Street cleaning
- Construction of roadways
- Resurfacing and maintenance of roadways
- Maintenance of the garage
- Construction and maintenance of sidewalks.

This list will afford some idea of the numerous unrelated accounts which are encountered. The compilation of proper cost data in each

activity provides a sound basis for comparison of similar work executed either by contract or by other municipalities. Furthermore, they enable the official to justify his expenditures. It is extremely important, however, that the information offered by such accounts should be sufficiently detailed for the reason that no two projects are exactly alike in every respect. The cost figures, therefore, are not helpful unless they lend themselves to analysis. In this way, any subdivision of the work may be singled out for separate study in the event of a possibility of revision or elimination.

There are a great many problems which must be taken into consideration when planning for municipal cost accounting. First of all, unlike a private corporation which has absolute control over its personnel, the municipal corporation is usually restricted to civil service employees who may be perfectly qualified to do the particular physical tasks assigned to them but, nevertheless, may be far from capable of producing the desired data which must be obtained for accurate cost reports. Then again, there are many restrictions placed upon municipal labor to the end that they are only permitted to do the work specifically set forth in their civil service rating. For example, a carpenter who may have finished the particular task assigned to him cannot be transferred to any other departmental activity. This statement is not made in derogation of civil service for it has many distinct advantages and it owes its origin to the many abuses which have crept into municipal government. Nevertheless, it is one of the problems which must be considered as distinct from problems encountered in private enterprises.

Many municipalities endeavor to analyze their expenditures at the end of each year in the attempt to justify expenditures in various branches but it is obvious that historical records are of no value in determining current problems. Each day, or at the very latest, at the end of each week, the cost of each particular function should be determined to insure maximum efficiency with its consequent savings, or to ascertain whether or not the desired standards are being maintained. Cost systems also result in a specialization of effort with a marked increase in the returns of each activity. It is argued from many sides that municipal forces are inert to a much higher degree than is the case with private contractors. One of the primary reasons for this lack of effort is the absence of direct or indirect supervisory forces. Many municipalities are wasting thousands of dollars annually due to the unbalanced ratio of mental to physical forces. In order to bring the supervisory staff to normal, it would

involve substantial increases in salary appropriations with a consequent risk of political interference or inefficiency. A municipal cost system can relieve the situation by measuring the potential possibility and capacity of each force or service and determining the production to be derived therefrom. I shall illustrate this point more clearly later on when I discuss the work of cleaning catch basins.

In setting up a cost accounting system, it is extremely advisable to avoid the use of arbitrary figures. By the use of them the accountant is soon led astray and the penalty of such a procedure is a marked increase in the percentage of inaccuracies. It is far better to take sufficient time at the outset to make a very rigid survey of the particular activity for the purpose of setting up proper standards. The work of setting up proper standards involves the question of accurate measurement, whether it be a measurement of labor efficiency, a measurement of equipment efficiency, or a measurement of material utilization. The use of such a table of standardization is extremely helpful in the preparation of annual budgets and the scheduling of all projected work. Then again, it is also very desirable to establish uniform records among the various municipalities, for it becomes vitally necessary to know what each particular service costs. In street surfacing work, costs are kept on the square yardage basis. In the garbage and ash collection service, costs are kept either on the tonnage or cubic yardage basis. In street cleaning, the costs are kept either for each clearly defined section or on a mileage basis. In the work of snow removal, the costs are kept per cubic yard of snow removed and per mile of roadway maintained, as well as per inch of snowfall. In other words, the cost should be accurately shown for each accepted unit of measurement. Very many municipalities measure the effectiveness of their work by comparing per capita costs. This is extremely helpful when there are so many variables that enter into the circumstances of each case. By variables I mean that climatic or geographic conditions may be quite different. In addition to this, the character of the population may have to be considered. Some municipalities, for instance, may not take into consideration unused labor constituting expenditures for holidays, vacations and sick time, whereas another municipality may not take into consideration equipment rental. Still another municipality might go the limit in considering its overhead costs to the extent of figuring the depreciation of equipment and plant, as well as to include the interest on investment and loss of taxes involved in a given

undertaking. We can, therefore, appreciate the value of standardization or uniformity in unit cost records.

There are certain items of overhead which are fairly constant and are under more or less scrutiny and control, and if a municipality would only exert every effort to minimize lost labor and wasted material, it would then have the expenditure of a considerable portion of public money well within its control. Then by establishing an adequate system for reporting the daily accomplishments of each force, it will be possible by a cursory glance at the results obtained from such records for the supervisory force to best determine where to direct or concentrate their efforts. Fewer bosses are required in certain classes of work, for the cost record is more persuasive than the eye of the task-master, for one skilled department head can direct more men with much greater efficiency and effectiveness than is possible where cost records do not exist. The work of compiling figures leads to a study of differences of costs which is the first step in an introduction of more modern methods.

Before going into detail as to the application of cost accounting, I might take just a moment to give you some idea of our municipality. Brookline, Mass., is a community having a population of approximately 50,000 inhabitants. It has an area of 6.81 square miles and although its population is far in excess of the statutory requirements for a city charter, it has nevertheless retained its town form of government upon which it has thrived so well since its incorporation in 1705. The only change, in fact, was the adoption of a limited town meeting form in 1915 in consequence of the ever-increasing and unwieldy attendance at the town meetings. By the influence of some strange wisdom, we have refused to grow up into a city. It is primarily a residential community because of its close proximity to Boston, which city in fact practically surrounds it. For this reason, our problems are quite different from what they would be if we were geographically isolated.

When our cost system was first adopted in 1925, officials were amazed with the response of every activity to consequent savings. The highway, forestry, sewer, and garbage departments which were operated independently were consolidated under a superintendent whose duties are comparable to those of a public works commissioner in a city government. Greater efficiency has been realized by centralized purchasing and a reduction by consolidation of overhead burden. It is now possible to exchange laborers from one activity to another in each of these four departments in view of the

fact that they are under one supervision and appear on but one payroll.

Establishing Efficiency in Garbage Collection Service

The first activity which we will consider is that of the garbage collection service which has received so much favorable comment from public health officials throughout the country. Each year, in fact, students from the various medical schools and colleges around Boston have visited us for the purpose of making a study of our system.

You will recall that a few moments ago I mentioned the necessity for the proper measurements of any activity for the purpose of establishing standards. This is exactly what was done in the garbage collection service. A complete survey of the work was made for the purpose of cutting costs and increasing efficiency. It was felt that the previous arrangement of one collection a week under the contract system was inadequate and unsatisfactory. It was, therefore, decided to collect the garbage three times a week from residences and daily from commercial establishments because of the quantity produced; in other words, standard of service rather than cost was the determining factor in the minds of the town fathers, although, strange as it may seem, the high standard has reflected a comparatively low cost to the citizens. Frequency of collections has directly improved conditions of health for it has reduced the quantity of material stored on the premises and, thereby, the cumulative storage throughout the town. This naturally reduces the fly and disease-bearing nuisances and although its effect upon the health of the citizens cannot be measured precisely, it is sufficient to conclude that the splendid record of health among the citizens is due in no small measure to the present standard of garbage control. I might mention at this point that Brookline has received the highest record for the last two years for the municipality of its size rating the highest standard of health among its citizens. Another important advantage of frequent collections is the fact that garbage does not reach the stage of decomposition that is experienced in many other communities. The town is laid out in definite routes and the adherence to time schedules is really extraordinary. An attempt is made also to prevent any lost effort on the time of collection forces. For example, if a family leaves for an indefinite trip or goes away for a summer vacation, the collector, after two or three calls, drops the premises from his route. The burden is then on the householder to call the garbage collection headquarters and collections are immediately resumed.

The trucks are municipally owned and maintained. They are kept in good repair, are washed with warm water each night, and present a spick and span appearance while on duty. This high standard has a distinct aesthetic value to the citizens and their community and the absence of heterogeneous equipment no doubt makes them less noticeable in moving about on the street. Pneumatic tires were adopted for the purpose of increasing the speed and cutting that part of maintenance cost which is due to the tremendous pounding and jarring which obtains with the use of solid tires. Pneumatic tires, incidentally, further reduce the wear and tear on town-maintained roadways. As a result of the survey analysis, each truck was placed in direct charge of a chauffeur who is responsible for a schedule and who takes all orders with respect to collections from the inspector. Each chauffeur must also act as a collector and occasionally each collector is called upon in various instances to drive the truck. When the truck starts off on the route, each collector goes to the source of garbage, usually in the rear of the premises, and whenever it is necessary, as is the case when the chauffeur happens to be engaged in the service of collection, the collector boards the truck and drives it ahead so that as fast as garbage is collected, the truck is being brought ahead by each man in turn.

The survey also included a study for the purpose of arriving at some system whereby it would be possible to expedite the work of the forces and compensate them for extraordinary efficiency or effort in line with the practice prevailing in private enterprises through the use, for instance, of the bonus and piece-work plan. The tonnage that should be collected by each force was therefore determined and there was an understanding with the men that when this tonnage was collected, their day's work was accomplished and they were through. This fact, in itself, obviously had a tendency to keep the men moving and each collector was in reality a check upon his co-worker. In such a crew, a slow man obviously would not be tolerated since he would prevent the other men from finishing early. These men all average about 30 years of age and have been selected with due respect to their physical capacity and agility. The men, therefore, are working at top speed in the morning when their resistance is high and in the early part of the afternoon when fatigue is inclined to manifest itself, they are finishing up. This stimulus has the added advantage of reducing the time when trucks are seen on the street, for which the citizens are usually grateful. Through the use of pedometers, it was found that in some instances the men walked as

far as 22 miles per day on the collection routes. A plan was adopted therefore whereby routes were slightly changed so that every other day the distance to be covered would be somewhat less than on the previous day. In this way, the strength of the collector was conserved.

A special form is used for each complaint that is received in the office. On this complaint form the inspector must report the name of the party interviewed and cite the specific facts in connection with the complaint. On the basis of this information it is possible to determine whether or not the complaint is justified. In view of the extremely limited number of complaints which are received, we found it was not necessary for us to keep monthly records; in fact, most of the calls at the office were merely for resumption of collection or reporting new occupancies. Furthermore, in view of the fact that the men must return to any collection point that has been skipped, it can be readily appreciated that such a delay interferes considerably with their getting through early. We believe this fact alone contributes quite appreciably to the efficiency of the men.

Foremen's Daily Reports

In every departmental service the foreman should be acquainted with the cost of his particular function. This is done to keep him in competition with other foremen in similar branches of the work. In like manner, a municipal department should strive in a competitive way to exceed the attainments of other communities having similar departments in the matter of costs and records, as well as methods employed.

Every foreman is required to turn in a daily report similar to that indicated by Figure 1. On this report appears the names of the entire labor force and a record of whatever equipment was used on the job, together with a notation of all material received. In this report, as I have previously stated, it is extremely important to have accurate information in order to give accurate cost reports, and to accomplish this it is vital that the proper division of labor and equipment rental be shown against the various appropriations. This report is so designed that the distribution of labor over the various divisions of work is properly indicated so that when turned over to and properly approved by the division foreman or whoever is in charge of the work, it may be passed directly to the payroll clerk. On the reports of the foremen engaged in sidewalk or street resurfacing work, there must be indicated the exact yardage of work completed during the day.

TOWN OF BROOKLINE—Highway Department

Daily Return of *Wm. P. Norton*..... Date *Thurs. May 18, 1933.*

LABOR AND MATERIAL	WORK DONE ON	Flush Coating Scaver St.		Flush Coating Channing Road		Resurfacing Clark Road		Grading-Asphalt S.W. Fisher Ave.	
		1	5	1	5	1	5	1	5
Trucks	Tonnage	1	5	1	5	1	5	1	5
Rollers	<i>Gas Roller</i>	✓		✓		✓			
Loads Crushed Stone		1	5	1	5	1	5	1	5
" Seconds		2		2					
" Sand									
Names of Entire Working Force		HOURS WORKED							
<i>Wm. P. Norton</i>	Foreman	2		2		4			
<i>Andrew McCarthy (Chauffer)</i>		2		2		4			
<i>Alex. McAdams (Roller)</i>		2		2		4			
<i>John Hughes</i>		2		2		4			
<i>Hugh Watterson</i>		2		2		4			
<i>Frank Campbell</i>		2		2		4			
<i>Wm. J. Tierney</i>		2		2		4			
<i>Henry Clark</i>		2		2		4			
<i>Fred. Wall</i>		2		2			4		
<i>Malcolm Jones</i>		2		2			4		
<i>Dan Hyland</i>		2		2			4		
The following material was received on the job:									
<i>Standard - Binder B</i>		600		800					
<i>W.R. Trap Rock</i>		22000*		28000*					
<i>6 gals. gas from yard for roller</i>									
<i>2 loads cinders from Heating Plant</i>							4000*		

FIGURE 1

TOWN OF BROOKLINE													
HIGHWAY DEPARTMENT													
Laborers' Pay Roll for the Week Ending Wednesday,													
193													
	NAME	Thurs	Fri	Sat	Sun	Mon	Tues	Wed	Time	Rate	Amount	For the week ending, insert a knowledge as to how many hours all the Laborers for the week worked and indicate a note as to any special services for the week.	
												After 1 Hour	Cash Paid
1	Foreman-Inspector												1
2	Patrick Collieran								7.50				2
3													3
4	Working Foremen												4
5	Frank Crohan								5.75				5
6	Thomas Lacey								6.25				6
7	William P Norton	/							6.25				7
8	Daniel O'Brien								5.50				8
9	Ussip Pernin								5.75				9
10	Henry Schmidt								6.25				10
11	Harold Small								6.66 1/3				11
12	Chauffeurs												12
13	Albert Carroll								5.25				13
14	Patrick Cavanaugh								5.75				14
15	James H Corbett								5.25				15
16	John Foley												16
17	William Hanley												17
18	George Lynch												18
19	James Mahoney												19
20	William Mahoney, 2d												20
21	James Malloy												21
22	Patrick Maloney												22
23	Andrew McCarthy	/											23
24	Hugh McCarthy								5.50				24
25	Richard McKenney												25
26	Otis Merrihew	/											26
27	Richard Moloney												27
28	Kieran Mulvey												28
29	Bartholomew Nihan	0											29
30	James O'Hare												30
31	James Reilly												31
32	John Rutherford	X											32
33	Frank Ryan												33
34	John Smith												34
35	Patrick Sullivan												35
36	Thomas Sullivan												36
37	John A Tynan												37

FIGURE 2

Figure 2 indicates the loose-leaf type of payroll which is used by the department. The names and rates are printed in to expedite the work of payroll preparation. This loose-leaf type payroll lends itself to the obtaining of carbon copies whenever desired. Our practice is to make one carbon copy for the office files and to send the original to the treasury department. Whenever an additional copy is desired for the use of the Civil Service Commission, it is possible to make one up as the week progresses. You will note that on some of the names, a square or circle is placed about the mark. The significance of these marks is to illustrate whether the man is being paid for vacation, sickness or injured time. Thus, when the clerk is posting this labor record to the personnel card, the proper notation can be made of this information.

Unlike many communities which compute their payrolls at the end of the week, the payroll clerk enters from the foremen's daily reports to the payroll the hours worked every day by each member of the force. Then as she posts the labor hours on the payroll, she at the same time posts the division of labor directly to the division sheet indicated in Figure 3. In this way, it is possible for her to reconcile the total of her payroll and daily division each day, rather than at the end of the week. The daily division of labor cost is then posted to the daybook and subsequently to the ledger. This daily division of labor is extremely helpful and advantageous, more particularly in municipalities where the same men are engaged in many departmental activities with the consequential diversity in the allocations of charges to different appropriations.

As previously set forth in this paper, it is extremely important that the municipality maintain a proper control over labor, material, and equipment, for these three items represent the greatest portion of its expenditures. Unlike a private corporation, the matter of apportioning the overhead or fixed charges is not so vital due to the fact that there are no such immediate considerations as rent, taxes, insurance, advertising, and selling expenses, amortization charges, and the like. It is advisable, however, to include all overhead, and in the event that it becomes necessary to compare the cost of work done by the municipality with a possible saving under a private contract system, all these important factors must be taken into consideration.

Control of Overtime

It is quite essential to take every precaution possible to prevent unnecessary expenditures for labor. To accomplish this purpose, we

DAILY DIVISION OF LABOR COST FOR THURSDAY, MAY 18, 1933

ASHES 10 MEN 5 CHAUFFERS	50 00 27 50	SIDEWALKS GRAN INSPIC.	5 50	STREET CLEANING FOREMAN-CROJIAN FOREMAN-O'BRIEN 6 MEN	5 50 5 50 30 00	YARD WATCHMAN 3 MEN	15 00	FLUSH COATING CHANNING ROAD FOREMAN-NORTON 2 HRS CHAUFFER 2 HRS ROLLER 2 HRS 8 MEN	1 56 1 31 1 31 10 00
PAPER 8 MEN 4 CHAUFFERS	40 00 21 00	GRADING ASPHALT SIDEWALKS FISHER AVE. 3 MEN 4 HRS.	7 50	SECTIONAL CARE 20 PATROL SWEEPERS	100 00	CARE OF TOOLS 2 MEN	10 00	RESURFACING CLARK ROAD FOREMAN-NORTON 4 HRS CHAUFFER 4 HRS ROLLER 4 HRS 5 MEN	3 13 2 63 2 63 12 50
DUMP 1 MAN	5 00	GRADING COLBOURNE CRESCENT FOREMAN-LACEY 8 MEN	5 75 40 00 10 50	STREET SIGNS PAZOLT-PAINTER	5 50	REPAIRING SNOW EQUIPMENT PERRIN 4 HRS. LARKIN 4 HRS FOLEY 4 HRS	2 98 2 50 2 50		
CARE OF SEWERS CLEANING BASINS 2 CHAUFFERS	10 50	REPAIRING PLANKS PERRIN 4 HRS. LARKIN 4 HRS. FOLEY 4 HRS.	2 97 2 50 2 50	FENCES 2 MEN	10 00	FLUSH COATING SEAVER STREET FOREMAN-NORTON 2 HRS CHAUFFER 2 HRS ROLLER 2 HRS 8 MEN	1 56 1 31 1 31 10 00		
INJURED MEN 3 MEN AT 2.57	7 71	SETTING EDGESTONES COLBOURNE CRESCENT FOREMAN-NEE FROST COOK CHAUFFER	6 00 5 75 5 00 5 25	REPAIRING TRUCKS SMALL BRACKETT BUTLER LESLIE MARION	6 66 5 75 5 75 5 75 5 75	ORDINARY LABOR 3 MEN	15 75		
		TOWN FOREST FOREMAN-COLLERAN 6 MEN	6 00 30 00						

FIGURE 3

are using a form indicated by Figure 4 which must be filled in by every departmental foreman. This form, known as "Record of Overtime," is used in the nature of a deterrent and in submitting it, it is the duty

[illegible]

FIGURE 4

of the division foreman to state that the overtime covered emergency work that could not have been completed in the regular eight-hour day period. The foreman must state in detail exactly of what the

overtime consisted. This report is designed to eliminate such chronic abuses as working the men overtime solely for the purpose of obtaining additional remuneration. It has the further advantage of checking any violation of the State Labor Law which limits the forces to 48 hours per week.

One of the problems which is somewhat unique in municipalities is that of properly caring for superannuated employees. A private corporation may have a strong moral obligation in this regard but the tendency in later years is to either retire them or dismiss them. Whereas, in the case of a municipality, many communities do not have a compulsory retirement system and the aged employees must be cared for by assignment to duties which will not tax their limited physical capacities and yet will not associate them with the other forces to the extent that they become a demoralizing factor. It has been our practice to place these older men in street cleaning patrol work due to the fact that they work independently of other men for the most part and consequently do not demoralize the younger men who can accomplish a great deal more. It will then be observed that the cost record kept of each section will vary considerably depending on the physical limitations and efforts of each patrol sweeper.

Certain Legal Restrictions

There are also statutory or legal restrictions making impossible the adoption of many practices which are common to ordinary accounting; for example, in the purchase of new equipment, such capital outlay must be charged directly to some specific appropriation, although in fact the equipment may be used in many different branches of service. It is impossible to set up a garage sinking fund for the purchase of equipment but fortunately it is permissible to charge against such garage account a daily rental charge for the use of equipment to the end that the cost of operating the garage may be entirely wiped out by allocating its expense to the various divisions in proportion to the demands for equipment on the garage. Amortization or depreciation accounts are not used generally and it is necessary, in comparing the costs of municipal activities with those of private contractors, to consider substantial depreciation and insurance costs. For example, in Massachusetts it costs \$2 per truck to register a municipal unit whether it be a four or five-ton truck. You can compare that with the costs that are levied upon the private contractor.

Motor Truck Costs

The daily cost record as indicated in Figure 5 is kept for every piece of motor equipment. The truck number is given, together with the time it leaves and returns to the garage. The name of the driver is also indicated, as well as the number of tickets collected in the event that the truck might have been engaged in the collection of rubbish or garbage from commercial establishments. The body of the record is divided into three sections so that the driver may record thereon the actual work done in the morning, afternoon, or, in the case of overtime, at night. The driver must note the actual work on which he was engaged, whether it be carrying material for resurfacing a particular street, collecting garbage, hauling snow, etc. He must also indicate the number of loads, as well as the weight of each load and the time consumed on each project. On the basis of such information contained on the cards, an accurate charge can be made against the particular appropriation indebted and a proper credit given to the garage account. It will also be noted that there is a space provided on this card for gasoline, oil and grease used, as well as the labor employed for washing and repairing. On the reverse side of the card may be found a detailed tabulation of the various mechanical features common to motor equipment. In the event that the driver encounters any difficulty during the day which does not necessitate his returning immediately to the garage, he must make a note of the same on this report. Then upon his return to the garage at night, it is his duty to call the matter to the attention of the superintendent of equipment who will place the truck in charge of a mechanic so that it may be put in readiness for work the following day without loss of time. On the bottom of the card is a space provided for the tabulation of any stock which may have been disbursed by the stock clerk in connection with repairs on the truck. The exact type of requisition form is shown in Figure 6. It might be noted at this point that when requisition is made for replacement parts, it is necessary for the mechanic to turn into the stock room the old parts. The items then which have been posted on the bottom of the card are priced and posted each month to the monthly equipment cost record card indicated in Figure 7. To this card is also posted the cost of gasoline and oil which is kept daily on a special oil and gasoline record card. This latter card is kept primarily for the purpose of comparing the daily consumption of gasoline and oil with the mileage covered by the truck. It may be seen, therefore, that any discrepancies or misappropriation of gasoline and oil will soon reveal itself.

BROOKLINE HIGHWAY DEPT.

Daily Cost Record

Truck No. **25** Date **5-18-33**Left Garage **7.20 A.M.** Ret. to. Gar. **4.30 P.M.**Driver **Andrew McCarthy** Tickets Collected

A. M. Work 7.30 - 12.00	Flush Coating	LOADS	HOURS
	Seaver St.		2
P. M. Work 12.00 - 4.30	Flush Coating		2
	Channing Road		
Night Work 4.30 p. m. 7.30 a. m.	Resurfacing		4
	Clark Road		
Total			8

Gals. Gas **6** Hrs. for Wash **1/2**Qts. Oil **1** Hrs. for Repair

Grease

Remarks:

Fan belt looseApproved **J. G. G.**
Supt. of Equipment

FIGURE 5

REPAIR

REPORT

MOTOR

MISC.

Ignition

Carburetor

Cooling

Valves

Compression

Plugs

Knocks

No Power

Lubrication

Generator

Starter

TRANSMISSION

Clutch

Differential

Chain Drive

Universals

Bands

Front End

Rear End

Axle Shaft

BRAKES

Foot Brakes

Hand Brakes

Acetylene Tank

Lamps

Radius Rods

Frame

Torque

Radiator

Fan

Battery

Accelerator

Pedals

Springs

Fenders

Steering Gear

Holst

Body

Wheels

Wheel Bearings

Cab

TIRES—TUBES

Odometer Reading

L F .....	.....
R F .....	.....
L R .....	.....
R R .....	.....

PRICE

Stock

.....

.....

Repairs Approved

Supt. of Equipment

The labor entailed for washing and repairing as shown on this daily cost record card is also posted to the monthly equipment card together with the cost of parts, tires, garage rental if any, and proportionate fixed charges or unused labor, as well as any expense involved for outside repairs.

An individual garage record card, which is shown in Figure 8 of the exhibits, is kept for each piece of equipment and all notations of repair materials used and the cost of outside repairs are noted so

Brookline Highway Dept.—Stock Requisition No 4840

Date _____

Quantity	Description	Part No.	Cost

To be used on _____ Signed for by _____

O K _____ Checked _____

Sept. of Equipment Stock Clerk

FIGURE 6

that a constant vigilance may be kept of the operating expense of each particular unit. This record therefore reveals any excess cost of repairs to the end that the question of whether or not a particular unit has outlived its usefulness may be determined. The high standard of truck maintenance has been made possible by a very close scrutiny in the matter of costs and the results obtained. Furthermore, records are kept of the accomplishments of each truck and as in other services, this has a psychological effect upon the men to the extent that they feel their superiors are interested in their work and are keeping track of their individual efforts.

Ash Collection Service

A study was made of the ash collection service and it was discovered that, due to the length of haul, the horse-drawn equipment

had long since become impractical. Round trips to the dump involved excessive time with the serious consequential item of lost labor effort by reason of the fact that crews of laborers were required

Brookline Highway Dept. Garage Repair Record			No.
Description			
Date	WORK DONE	Hours	

FIGURE 8

to wait for the return of equipment. A study of the possibilities of motorization was made and particular attention given to the type of truck which would render the best service. It was decided that a

chain-drive truck would give more efficient service with less wear and tear resulting from constant starting and stopping. Since the motorization of this service, the expense of collecting ashes and paper was reduced approximately \$30,000 per year. This was due principally to taking up the slack in lost labor.

BROOKLINE HIGHWAY DEPARTMENT

Ash Collection Cost Record for JUNE 1932

Truck No.	4			6			18			19			24			30					
Date	Lds.	Hrs.	Dump	Lds.	Hrs.	Dump	Lds.	Hrs.	Dump	Lds.	Hrs.	Dump	Lds.	Hrs.	Dump	Lds.	Hrs.	Dump	Lds.	Hrs.	Dump
1	5	8	K	4	8	K	5	8	K	4	8	K	4	8	K						
2	5	8	K	4	8	K	5	8	K	4	8	K	4	8	K						
3	5	8	K	4	8	K	5	8	K	4	8	K	4	8	K						
4	3	4	K	2	4	K	3	4	K	2	4	K	2	4	K						
5																					
6	5	8	K	4	8	K	5	8	K	4	8	K	4	8	K						
7	5	8	K	4	8	K	5	8	K	4	8	K									
8	5	8	K	4	8	K	5	8	K	4	8	K									
9	5	8	K	4	8	K	5	8	K	4	8	K									
10	5	8	K	4	8	K	5	8	K	4	8	K									
11	3	4	K	2	4	K	3	4	K	2	4	K									
12																					
13	5	8	K	4	8	K	5	8	K	4	8	K									
14	5	8	K	4	8	K	5	8	K	4	8	K									
15	5	8	K	4	8	K	5	8	K	4	8	K									
16	5	8	K	4	8	K	5	8	K	4	8	K				4	8	K			
17																					
18	3	8	K	3	5	K	3	5	K	3	5	K				2	4	K			
19																					
20	5	8	K	4	8	K	5	8	K	4	8	K				2	5	K			
21	5	8	K	4	8	K	5	8	K	4	8	K									
22	5	8	K	4	8	K	5	8	K	4	8	K									
23	5	8	K	4	8	K	5	8	K	4	8	K									
24	5	8	K	4	8	K	5	8	K	4	8	K									
25	2	4	K	2	4	K	2	4	K	2	4	K									
26																					
27	5	8	K	3	8	K	5	8	K	3	8	K									
28	5	8	K	3	8	K	5	8	K	3	8	K				1	4	K			
29	5	8	K	3	8	K				3	8	K				3	8	K			
30	5	8	K	3	8	K				3	8	K				3	8	K			
31																					
Total loads	116			89			126			89			18			15					
Ave. wgt.	7000			14000			7000			9300			14000			14000					
Total wgt.	812000			1246000			882000			817700			252000			210000					

Cost of Labor \$1539.10 Use of Trucks 792.00 Total Cost \$2331.10 Total Tons 2109.85 Cost per Ton \$1.10

K = Kensington Circle Dump
Dump Code T = Taylor Crossway Dump

FIGURE 9

The inspector in charge of ash collection keeps a record of the accomplishments of each truck as shown by Figure 9. From this report he may observe from time to time the number of loads collected by each truck, as well as the number of hours it worked. Under the

Comparative Costs (Ashes)

FIGURE 10

this sheet the cost of labor and determine the collection cost per ton. In the ash collection service average weights are usually employed due to the fact that dumps are located in various parts of the munic-

ipality and scales are not always available. Whenever the trucks are in proximity to the scale house, however, they are required to weigh so that a constant check is kept on the average weight used in the tabulation. If there is a variance from the standard cost per ton arrived at for the collection of ashes, the dump code translation becomes a very pertinent consideration as to the length of haul for the purpose of a justification of such variance.

Figure 10 indicates a comparative cost sheet which is kept for the ash and paper service whereby it is possible to follow closely the daily labor and equipment rental costs, together with the number of trucks employed each day of the current year in comparison with a similar period for the previous year. With the employment of such a check, any variance is quickly discovered and its cause is determined before any great waste is suffered. A study of the cause of such variance might indicate the prevalence of severe snow storms, excessive heat waves, and the like. As previously stated, every activity studied responded admirably to savings. In the paper collection service, for example, it was found that considerable time was lost at the incinerator while the men were engaged in unloading the trucks. In view of the fact that the paper had been packed so tightly, it was necessary to practically free the entire load with the aid of pitchforks. As a result, a wire cradle was placed on the bottom of the truck and an electric winch installed at the unloading pit at the incinerator. Then the men only had to attach a winch rope to the cradle in the truck and the time for unloading was reduced from approximately twenty minutes to the matter of a few seconds. The men engaged in these collection services, whether it be ashes, paper, or garbage, are constantly instructed to deliver a higher grade of service. Many of our large department stores have succeeded by working under the influence of such slogans as "The public is always right." In a similar manner, we try to impress upon the men that they also must serve the public well. This attitude is reflected in the comparatively few complaints that are received.

Street Resurfacing—Delays Eliminated

The item of street resurfacing was found to be excessive and the cost system analysis revealed that the labor item was running much too high. This was due to substantial delays in the delivery of such material as stone and asphalt. This fault was immediately corrected and deliveries were planned so as to arrive within a few moments of the time when they were required by schedule.

The cost records, not only of construction but of maintenance, likewise reveal a wealth of data for the proper study of the life of pavements with respect to the relative demands of traffic upon them. It has been found that as a general rule, macadam roadways are expensive and do not wear sufficiently long when subjected to heavy traffic on main arteries. The trend, therefore, has been to asphalt, and whenever possible a concrete base has been used. Although the first cost of asphalt on a concrete base is more per square yard, when the life of the pavement is taken into consideration, the annual maintenance cost is reduced. In the work of resurfacing the highway, the comparison of quantities of materials used per square yard reveals at once the materials used in excess of standards. You will observe in Figure 11 a tabulation of all the individual street resurfacing cost cards. The analysis at the bottom of this sheet, which shows average quantities of materials used per square yard, reveals at once any excess use of material or variation from standards. All materials are purchased by the department under a rigid order system and before the material is delivered the approximate value of the order is entered against the appropriation as an encumbrance.

The Problem of Snow Removal

We now come to another subject which is an extremely important one to those who live in the northern sections of the country, and that is the problem of snow removal. In Brookline, we have been experimenting for a few years in an endeavor to set up some standard for snow removal. We have kept the cost of doing this work per mile, per snowfall inch, and per cubic yard of snow removed. I therefore believe that the data shown in Figure 12 will be of some interest. In this we have attempted to show the actual operating cost of each snow storm together with the cost of removing snow from various public squares and in front of commercial establishments. The operating cost in Brookline possibly runs somewhat higher than in other communities due to the fact that Brookline is practically unique in its policy of shoveling sidewalks. In other words, the property owner is not required to remove snow from in front of his property. The town forces do this work and the results obtained are so desirable that the citizens appreciate it and are willing to appropriate adequate funds for it at the town meeting. In organizing the forces, the town has been divided into various routes and as soon as one inch of snow has fallen, the town forces are mobilized and plowing begins.

It is very interesting to note in the mobilization of the men for

RESURFACING - SEASON 1932

<u>Street</u>	<u>Length</u>	<u>Sq. Yds.</u>	<u>Cost</u>	<u>Cost per Sq. Yd.</u>	<u>Tons of Stone</u>	<u>Gals. of Binder</u>
Amory Street	1365	4247	3,730.91	.87	732.40	11,309
Beaconsfield Rd.	520	1414	1,419.14	1.00	301.65	3,669
Beech Rd.	940	2085	2,121.36	1.01	473.10	6,947
Brington Rd.	916	2445	2,666.50	1.09	543.25	7,681
Buckminster Rd.	235	966	825.00	.85	190.30	2,352
Carlton St.	760	2027	1,673.50	.82	314.10	3,372
Clyde St.	740	2305	2,115.40	.91	166.25	9,966
Cottage Farm Rd.	475	1267	1,008.26	.79	176.85	3,265
Druce St.	440	1370	1,402.41	1.02	303.65	4,440
Dummer St.	510	1435	1,374.04	.95	269.10	4,785
Dunster Rd.	732	1954	1,482.29	.75	331.30	4,599
Dwight St.	1052	2805	3,129.44	1.11	513.40	12,998
Fisher Ave.	2050	7922	6,268.61	.79	1237.70	23,908
Glen Rd.	1245	3690	3,291.64	.89	634.15	10,852
Hawthorne Rd.	606	1797	1,930.04	1.07	402.20	4,600
Holland Rd.	1618	4665	4,536.61	.97	1045.05	14,656
Hyslop Rd.	1130	3516	3,065.36	.87	700.95	10,236
Ivy Street	365	973	1,276.91	1.31	299.00	3,042
Longwood Ave.	1070	3966	3,021.20	.76	639.35	5,440
Marion St.	1252	4638	3,330.39	.71	605.00	12,025
Middlesex Rd.	500	1334	1,327.40	.99	244.90	4,046
Penniman Rd.	645	1720	1,633.68	.94	289.50	6,028
Pine Rd.	1114	2970	2,713.05	.91	508.95	9,084
Seaver St.	2076	5536	4,675.61	.84	1047.15	15,287
Taylor Crossway	698	1880	2,508.16	1.34	461.40	8,284
Thatcher St.	504	1344	1,309.54	.97	246.65	4,025
Warren St.	360	960	909.28	.94	165.50	3,111
Willard Rd.	1698	4528	4,152.46	.91	761.99	13,533
Woodland Rd.	2450	6534	6,071.76	.92	1060.70	22,531
	28066	82273	74,969.95		14665.49	248,071

5.31 miles

82,273 square yards

\$74,969.95-cost

.91-average cost per sq. yd

.179 tons stone per sq. yd.

3.01 gals. binder per sq. yd.

OPERATING COST OF SNOW STORMS

SEASON 1930 - 1931

Storm No.	Date of Storm	Character of Storm	-----				Total Cu. Yds. Removed	Cost per Cu. Yd.
			Total Inches	Total Operating Cost	Cost of Removal			
1	December 25	(Heavy wet snow)	6	\$ 6,586.43	\$ 828.20		1,758	47¢
2	December 27	(Dry mealy snow)	5	15,019.02	2,303.49		5,884	39¢
3	January 19	(Heavy, slushy, freeze)	3.5	5,410.39	448.89		1,544	29¢
4	January 30, 31	(Light, dry, cold)	8	12,859.35	3,008.29		6,940	43¢
5	February 9, 10	(Heavy, wet, sleety)	5	9,831.09	1,325.20		3,276	40¢
6	February 18, 20	(Heavy, wet, slushy)	6	12,199.41	2,597.12		5,942	43¢
7	March 4	(Cold, light snow)	<u>7.5</u>	<u>9,781.15</u>	<u>1,235.34</u>		<u>3,322</u>	<u>37¢</u>
			41.	71,686.84	11,746.53		28,666	40¢

Average cost of removal per cu. yd. .40
 Total operating cost \$71,686.84
 Total miles maintained -.85
 Operating cost per mile for season 843.37
 Operating cost per mile for storm 120.48
 Total inches snowfall - 41
 Operating cost per snowfall inch 1,748.47

FIGURE 12

snow work if we happen to strike a snow storm during the night, there are certain key men for each section, and it is their duty to call those directly under them and they in turn get in touch with other members of the force. If the storm were so severe that it required instant mobilization, a mobilization alarm would be sent out on the curfew bells. The plows then keep going in progress with the storm so that it does not get beyond control. Each man is given a definite post and each successive storm finds him in the same position so that he, in fact, becomes experienced within his own sphere.

Street Cleaning

In the work of street cleaning, we do not as yet employ machine sweepers for two reasons; first of all, each machine that we have studied has not given the desired standard of cleanliness so that it was always necessary to supplement the work of the machine with labor forces; and secondly, because the street cleaning patrol force gave us the only possible chance of adequately caring for our superannuated employees. The town, however, has been divided into various sections so that it is possible for us to know the cost of cleaning per yard for each section. In connection with street cleaning, I am going to suggest one other point and that is the fact that we have 15,000 shade trees which are well cared for and of which we are justly proud. Nevertheless, the cost of maintaining each patrol section reveals that in the selection of roadside trees, due consideration should be given to the peculiar habits of the tree; so you see, clean habits are as important in trees as in human beings. Some trees are so lacking in the observance of the proprieties as to cause litter through blooms or fruit or through the breaking or falling of fragile twigs or branches. These trees are to be avoided for the sake of neighborhood pride and good housekeeping and the excess cost of cleaning the particular section where they are to be found.

Overcoming Unbalanced Ratio of Mental to Physical Force

Earlier in this paper, I called to your attention the wasting of dollars due to the unbalanced ratio of mental to physical force. A municipal cost system can relieve this situation by measuring the potential possibility and capacity of each force or service and determining the production to be derived therefrom. For example, in the service of cleaning catch basins in a municipality which I have in mind, the cost accountant has determined that one crew of two men (chauffeur and cleaning machine operator) should be capable of cleaning from eight to ten basins a day. The cubic yardage or ton-

TOWN OF BROOKLINE

Highway Department

Catch Basins

Date _____

<i>Location of Basins</i>	<i>No. of Loads</i>	<i>Weight</i>	
			<i>Total Weight</i> _____
<i>Names of Force</i>	<i>Hrs.</i>	<i>Rate</i>	
			<i>Total Labor</i> _____
<i>Equipment</i>		<i>Rental</i>	
			<i>Total Weight</i> _____
<i>Total Weight</i>	<i>Total Cost</i>	<i>Cost per T.</i>	
<i>Signed</i> _____			

FIGURE 13

nage removed is then determined at the central disposing plant, thus revealing the production or lack of production of that particular force. A record, as indicated in Figure 13, of each day's work is kept by the foreman in charge of this service. It will be noted that the location of each basin must be given, together with the number of loads and weight of material removed. To this report is added the names of the force, also the labor and equipment rental cost, so that the cost per ton or cubic yard of material removed as well as the cost per basin can be determined at the end of each working day. It might be mentioned at this point that if accurate records are kept of actual labor and material costs of each function, substantial savings can be made in view of the fact that these two items, namely labor and material, represent the greater portion of expense in municipalities. Cost systems furnish a wealth of information to municipalities on practically every phase of governmental function. For example, how often do we hear the public complaining of the burdens of the gasoline tax; nevertheless, real property has been accepting the burden of increased governmental cost for many years. Yet, a study will reveal that if it were not for the automobile, it would not be necessary to expend so much money for expensive and improved type pavements. We would not be required to maintain traffic police forces. We would not be required to maintain numerous signs and traffic lines, nor would we be required to install expensive and elaborate systems of electric traffic control. I do not call this matter to your attention as a proponent of gasoline taxes but rather to suggest what may be revealed by proper study. Brookline is making definite progress in this matter of cost work and we are proud to say that it has one of the lowest tax rates in the state, being merely \$20 per thousand of assessed valuation. It gives a high standard of service to its residents and its funded debt is extremely low. There are other communities, however, which are making equal progress and I have definitely in mind such communities as Kenosha, Wis., and Lexington, Ky.

In Figure 14 is shown a monthly analysis of public works complaint form which is used in Lexington, Ky., and which is extremely helpful to the department head in determining the weakspots in his organization. In other words, it is the measure of success or failure in municipal service. A great deal of credit is due to the Committee on Uniform Street and Sanitation Records of Chicago, which has assisted in the installation of many cost systems throughout the country.

Form 46

Form 46

MONTHLY ANALYSIS OF PUBLIC WORKS COMPLAINTS

Department of Public Works		For Month Ending		19
REFUSE COLLECTION		STREET COMPLAINTS OR SERVICES		
Nature of Complaint				
Results of Investigation				
Justified Complaints				
1. Failure to collect garbage.....	1. Collector failed to stop.....	1. Street dirty.....		
2. Failure to collect ashes.....	2. Refuse not properly removed..	2. Remove snow.....		
3. Careless handling of cans.....	3. Collector Discourteous.....	3. Hole in street.....		
4. Discourteous acts by collector..	4. Collector took property not in can.....	4. Street not oiled.....		
5. Personal property taken by collector.....	5. Other justified.....	5. Street very rough.....		
6. Other complaints.....	TOTAL.....	6. Street flooded.....		
TOTAL.....		7. Refill plumbers cut.....		
		8. Curb damaged.....		
		9. Sidewalk needs repair.....		
		10. Corner sign post down.....		
		11. Tree blown down.....		
		12. Cinders requested for driveway or lot..		
		13. Broken M.H. or catch basin cover.....		
		14. Sewer stopped.....		
		15. Private sewer flushed.....		
		16. False complaint.....		
		Etc.		
Special Service Request		Comparison of Street Complaints		
Unjustified Complaints		This Last This Year Last Year		
		Month Month to Date to Date		
1. Garbage collected.....	6. Refuse improperly located.....	_____	_____	_____
2. Ashes collected.....	7. False complaint.....	_____	_____	_____
3. Dead animals removed.....	8. Property carelessly left in or near can.....	_____	_____	_____
4. Other.....	9. Proved to be request for special service.....	_____	_____	_____
TOTAL.....	10. Other unjustified.....	_____	_____	_____
	TOTAL.....	_____	_____	_____
Comparison of Refuse Complaints		Comparison of Street Complaints		
This Last This Year Last Year		This Last This Year Last Year		
Month Month to Date to Date		Month Month to Date to Date		
JUSTIFIED.....	_____	_____	_____	_____
UNJUSTIFIED.....	_____	_____	_____	_____
TOTAL.....	_____	_____	_____	_____

FIGURE 14

A Cost Accountant Should Be Under Control of Public Works Official

The question has been raised several times as to whether or not the cost accountant should be under the supervision of the controller or finance officer of the community. There are many arguments in favor of both methods, as the circumstances in each community will vary considerably. I am rather inclined to favor, however, the placing of the cost accountant under the direction of the public works commissioner for he is more apt to be conversant with the various phases of the work and by constantly going on location can be of much constructive help. He is able to assist the commissioner in working out his various problems and in following up the accomplishments and measurements of each undertaking. Furthermore, it is possible for the public works commissioner to get his information much more quickly and before the data becomes historical matter.

In concluding, I sincerely hope that I have illustrated some of the possibilities of municipal cost accounting. Municipal consideration and adoption of at least some of the fundamentals of this system of control seem advisable and extremely practical. It is of great benefit to the citizens and those interested in their government, for the average citizen does not always comprehend the elaborate financial statements published in the records or annual reports of his community, but when they are reduced to the unit cost, he is readily cognizant of the work that is being done by his municipality. In other words, you are not talking to him in carload quantities. It is a stimulus to the organization and keeps the men interested, for the department head, by taking them into his confidence, can show them that the cost of work in any particular activity is exceeding the cost of work if it were done under a private contractor. Their jobs and their livelihood, therefore, depend upon their absolute cooperation. The results that seem possible of attainment certainly warrant the expenditure of the effort required to establish cost standards. Municipalities are beginning to learn that there is something to consider besides the cost of new road projects, as it is not the first cost of such thoroughfares or arteries but rather the future maintenance that effects the upward trend in taxation.

It might be stated in general that the function of cost work in municipal activities is to analyze the cost of doing a particular piece of work with a view to securing the minimum cost possible under existing conditions, as well as to provide data upon which to base estimates of projected work. These records should divulge such information as:

- Excessive use of material
- Excessive use of supplies
- Inefficiency of foremen or workmen
- Excessive lost time waiting for materials
- Obsolete methods
- Excessive overhead
- Excessive cost in comparison with other municipalities.

Much of our municipal waste has been due to the practice of increasing, though by a small amount, the individual budget items each year. Every increase should be justified in fact and budgets should be based not only upon past expenditures of public funds but upon accurate estimates as well. Cost records afford a sound basis of comparison and are a safeguard to the treasury. They furnish adequate control over expenditures, an intelligent basis for determining required revenue, a safe control of debt, and a definite warning for the conservation of resources. Where a cost system is found operating in a municipality, we invariably find that that particular municipality is operating on a strictly business basis.

CHAIRMAN CORNELL: Thank you, Mr. O'Shea, for that fine talk, which was a splendid companion to the one which preceded it.

Directly related to this subject of municipal accounting, the Association has received from Mr. Walter A. Staub, President of the New York State Society of Certified Public Accountants, an interesting letter, with which he sent us a copy of a resolution adopted by that Society in March of this year.

Unfortunately, Mr. Staub could not be present to read that resolution to you, but the Executive Assistant to the President of the New York State Society of Certified Public Accountants, Mr. Louis H. Renn, has just arrived on the platform. I am going to ask him to read that resolution and to comment on it very briefly. Mr. Renn.

MR. RENN: I like nothing better than a mutual understanding. Mr. Cornell said I would be brief, and he certainly hit the nail on the head.

There happens to be in progress now in Cincinnati a convention of Municipal Finance Officers. I suppose all of you have heard of it. Just as a beginning, I am going to quote the statement of the President of that Association, Mr. George D. Begale, who also happens to be the Mayor of Denver.

He states, "The greatest problem facing American cities today is that of municipal finances." I do not know how much cost accountants are interested in municipal finances, but I know the members of the New York State Society of Certified Public Accountants, now nearing 2,000, are very interested in it because they see in it a field that has hardly been tapped by the accounting profession, and where, if you read the daily papers, you will see that some installation of business methods and proper accounting policies would not hurt a bit; to wit, New York City.

This resolution was adopted by the New York State Society in a meeting, I believe, in this very ballroom, on March 20 of this year. Since that time we have been in correspondence with a number of national organizations. We have also corresponded with every mayor and fiscal officer of every New York city of over 5,000 population.

The replies from those people who are essentially in the field of politics have convinced us that they, for the most part, have open minds on the subject and would be glad to be shown wherein they could improve municipal finances without cutting down the efficiency of municipal government, and thereby increase the standing of municipal credit, which, during the last three months, while all other securities have been going up, has been declining rather sharply.

This resolution which I shall now read to you, is as follows, in full:

"The New York State Society of Certified Public Accountants respectfully urges upon the President of the United States, the governor of the State of New York and other officials and bodies concerned, the great desirability of the publication of more informative, prompt and frequent reports relating to the public finances.

"We believe that governmental financial statements should be made as clear and informative as the statements developed by modern accounting systems and employed by the most advanced industrial corporations. The accounting principles involved in determining the financial condition and operating results of government are identical with those applicable to private enterprise, and the public presentation of governmental accounts in such form as will lead to a better understanding of the public finances by our citizens is of paramount importance.

"The general understanding of the balance sheets and income statements of business has progressed with greatly accelerated speed during the last two decades as the direct result of three developments during that period. Corporation securities have become much more widely distributed and interest in the facts as to financial condition and operating results has been multiplied proportionately. Intensive study and analysis of corporation reports by management, investors and economists have improved their form and content. Internal revenue laws have instructed all citizens as to meaning in relationship of these two statements.

"We believe it possible so to report the financial condition and operations of government that this increased familiarity with the two basic financial statements of business may be utilized to bring into existence a new kind and increased degree of public interest in governmental finance, and that such interest, being based on a better understanding of fiscal facts and problems, would be a powerful aid to good government, economic reconstruction, and permanent stability."

The letters referred to, which we have received from various state municipal officials and heads of national organizations of all types, particularly those which have made it their business to study municipal finances, have indicated that when we drew up this resolution and passed it we commenced something.

I assure you, gentlemen, if you are interested in it at all, we intend to carry it to its logical conclusion. Until possibly six months, perhaps a year, ago, there was very little interest in municipal finances. Occasionally, a holder of municipal securities would try to get some information. Sometimes he might get a city official to give it to him. Other times he might not be so fortunate in securing a clear and comprehensive statement. However, numerous defaults which have occurred recently in some of our best cities have changed the situation.

Now the operations of municipal government are being scanned eagerly, and public opinion is demanding that sound principles of accounting be applied to municipal finances, and complete and understandable financial statements be published, at least monthly.

We believe that every taxpayer and every holder of municipal securities has a perfect right to ask a municipal official, especially the chief, such as the mayor or chief fiscal officer as treasurer, to give him a thorough and understandable accounting of their stewardship of his money at least once a year.

I thank you.

CHAIRMAN CORNELL: Thank you, Mr. Renn. Mr. Renn has put before us the thought that the general accounting methods of a municipality should be as well designed as are the cost accounting records discussed by Mr. Moe and Mr. O'Shea.

The meeting is now open for general discussion from the floor. Mr. Moe and Mr. O'Shea have agreed to answer questions. Please remember the purpose of the session. Its scope does not include federal accounting, nor do we want to talk about the excessive cost of government.

The discussion should be informal and may take the form of questions addressed directly to either of the speakers, or it may be

in the form of a statement of your own in amplification or criticism of anything they have said.

W. G. SCHULZ, (*Cost Accountant, Perfection Stove Co. Cleveland, Ohio*): I should like to ask one question. Is there any incentive plan for the foremen or directors in each of the divisions they were speaking of?

MR. O'SHEA: The only incentive that I can think of for the foremen is increased responsibility and experience on promotional examinations for civil service. In the case of laborers, we never requisition the civil service for chauffeurs. We always pick our chauffeurs from the laboring group and make that a promotional step.

G. W. SEYBOLD, (*Treasurer, Eureka Mower Co. Utica, N. Y.*): I should like to ask Mr. O'Shea if his figure of the \$20 per thousand assessment in Brookline—if he could elaborate on that a little to give us a little more light as to the comparison with what we may have for our own cities. There are three things, I think, that will enter into that. One of them will be about the proportion of the assessed to the actual valuation. It would give a higher tax rate if assessed lower than 100%.

Another one would be comparison of Massachusetts with New York State in the division. For instance, some things in Massachusetts may be included in county taxes, whereas in our state they might be in the municipal taxes.

I take it that your taxes included the school fund for maintenance of the schools. I wonder if you could give us a little more on that.

MR. O'SHEA: My understanding of the assessment is that the \$20.40, to be exact, per thousand of assessed valuation represents approximately 90 to 100% of the normal market value of the property, not on the basis of your present deflated prices.

What was your other question?

MR. SEYBOLD: I do not know that you can answer it, but I do not know how your division might come. For instance, you have ash and rubbish collection. There are a number of activities in some sections that are considered a county charge and would not come in yours, whereas, in some other sections they might. I wondered if there was anything you had along that line to enable us to get a comparative set-up.

MR. O'SHEA: I see what you are driving at. That figure represents every expense that is imposed on the taxpayer, whether it covers schools, state and county taxes, highways, public health, protection of persons and property—in fact, everything but poll taxes and personal property taxes.

In other words, there is a state tax which is collected by the municipality for old age assistance. It amounts to \$1 per male capita. Then there is the tax for personal property, which is more or less of an arbitrary tax on personal property and bank deposits. The tax of \$20.40, as I say, represents every possible charge that can be made upon the resident.

MR. SEYBOLD: That includes the county taxes?

MR. O'SHEA: The proportion of county taxes assessed upon the community. It includes any state taxes assessed. It includes, for instance, in our case, an assessment upon the community for deficits in operating the Boston Elevated Railway, and things of that sort.

MR. SEYBOLD: In your purchase of your motor equipment, you set that up in the same way as an industrial concern? That does not go in under the year it is purchased as an expense item total?

MR. O'SHEA: We do not set it up as you do in industry. We must charge the whole cost of that piece of equipment directly into some appropriation in that current year. The only thing we can do to compare with the practice in private industry is that daily rental charges are made for the use of trucks which offset the cost of operating the garage. It is contrary to law to do that. It is one of our legal restrictions.

MR. SEYBOLD: I was thinking how your depreciation runs. Do you use it as an offset?

MR. O'SHEA: We do not charge depreciation into any current operating cost figures. We simply consider that as an extraneous item when we want to compare the cost of our work with what it would cost us if we were to have the work done by private contract. Those are outside considerations.

MR. SEYBOLD: Thank you. I think I have a better picture now.

J. B. BROWN, (*Member, Brown & Imhof Louisville, Ky.*): You mentioned in your paper about the City of Lexington, Ky., reducing municipal costs. I should like to report that last month the Kentucky Society of Certified Public Accountants held a meeting in Lexington at which Mr. Paul Morton, the city manager, made a very interesting talk. He brought out one phase of reducing costs by operating on a cash basis.

He stated that the cash discount which the city received last year amounted to more than five times his salary. The City of Lexington pays all bills the same day they are received, and before any requisition is converted into a purchase order, it is first sent to the city auditor who approves it for payment on an estimated cost. The requisition is then sent to the purchasing department and all purchases involving any substantial sum are submitted for bids. When it is selected they ask how much it is for cash. In that way they have made substantial savings on cash discounts.

I should like to ask if your city operates on that basis and has saved any substantial amount in cash discounts.

MR. O'SHEA: There is no attempt on the part of our community to expedite the payments of bills. In other words, we pay usually on the second Monday of every month every voucher that is received, but in any instance where a discount is allowed, the treasury and accounting departments will allow that voucher to go through with the weekly payroll so we can anticipate all cash discounts.

I might say that many communities in Massachusetts are now considering the advisability of collecting taxes semi-annually to reduce, if possible, the interest cost in borrowing in anticipation of taxes. I think Mr. Moe has more information on that subject that he might offer.

MR. MOE: The gentleman who just spoke so kindly of the City of Lexington, Ky., is absolutely right. There are many other cities that are carrying out the same principles as carried out in Lexington. The State of New York, for example, has 14 cities that have centralized purchasing at the present time. In the cities of over 100,000 population in the U. S., of which there are 91, about 50% have centralized purchasing as explained for Lexington.

The large cities like Milwaukee, Minneapolis, New Orleans, and Cincinnati report large savings from pooled buying power of their city departments which nets many thousands of dollars annually.

Cincinnati has perhaps carried that plan further and done a better job than any community because they have taken in the three main units of government—county, city and schools. In the first place, they have prepared a consolidated long-term plan for all improvements for city, county and schools. They have combined their buying power in much the same manner. The same price is paid for coal that goes to the county as for coal that goes to the city institutions or schools.

In purchasing, if we want to get real cost accounting, we need centralized stores. Many have not gone that far for the simple reason that some state laws will not allow cities to set up revolving funds to carry stores until consumed. Centralized purchasing without centralized stores does not provide desirable results for control over inventory of material and supplies. When you do not have centralized stores, operating departments will increase their budget requests so that at the end of the year they can purchase materials to beat the next year's budget. With centralized stores, we eliminate such practices through the budgetary control system. Budget estimates carry only the amount of material which the operating departments are actually going to use during the year. The stores accounts carry the perpetual and annual inventories.

For example, in Lexington, Ky., City Manager Paul Morton decided to operate a centralized store for supplies used by all city departments and a central equipment bureau. Further, he decided to set up a replacement reserve so that whenever equipment needed to be replaced, he would not have to appropriate any department account for such purchases. The only time appropriations would be made for new equipment would be in case it was not a replacement. The Lexington store handles all commonly used commodities for all departments. Commodities used only by a single department are purchased direct for those departments. Fire hose is one good illustration. No other department in the city uses new fire hose. The Sewer and Works Department may use old fire hose for cleaning sewers.

The stores control account carries the inventory at the start of the year, plus all purchases during the year, and at the close of each month a distribution of all stores issued to the appropriation account and cost account is provided. As the distribution is accumulated, the needs of both the general and cost accounts is met at the same time. At periodic intervals the city general accountant goes to the storehouse and checks the fiscal stores with the book accounts.

All city-owned equipment is carried in one control account in the general accounting office. These general accounts do not tell what cost operations equipment works on, but they must carry the charges to the appropriation accounts. Therefore at the end of a complete distribution of all equipment, rentals are provided so that both the cost and general accounts can be charged. Rental rates are not used for police and fire equipment. The garage and repair shop charges on this type of equipment are made at actual cost. When rental rates are charged the equipment account is credited, so this account is cleared and has no balance fund for that. Current city cash is used to finance these expenses until bills for rentals can be passed.

R. J. HANNON (*Member, Naramore Nils and Co., Troy, N. Y.*): I should like to ask if it is a custom to tie this cost system into the general books.

MR. MOE: Absolutely. The cost system is not worth much unless there is some control in the general ledger of the city. Sometimes it is difficult to get proper controls established, partly because some of our city finance officers have been slow to appreciate the value of these control accounts and partly because state laws in some cases do not cover costing.

The City of Kenosha, Wis., makes an appraisal of its equipment at least once every two years by competent appraisal engineers. The director of finance sets up the values so furnished and provides the annual depreciation charges on plant and equipment. Thus, the costs of equipment include a depreciation charge. Further, the finance office carries one stores account for material and supplies in stock. The purchasing agent has control over stores, bills the storekeeper and charges departments monthly for stock delivered to them on stores requisitions.

Two years ago in making an installation of public works records at Troy, N. Y., the city controller did not see the need of establishing the control accounts which we desired and which are needed for cost accounting; therefore, we arranged for our own control accounts within the works departmental accounting system. The works department in Troy has much broader powers and carries on many more activities than do similar departments in other states.

In Binghamton, N. Y., which is another Class B city of New York, we were able to get the controller to establish excellent control accounts for the departmental cost accounts. Here equipment rentals

are channeled through the general ledger in the department of finance. The city manager of Binghamton insisted upon adequate control and to him is due the credit for these improvements.

There are many common problems of payroll distribution which affect every city. Often we find city employees receiving from two to five pay checks in one weekly pay period, because cities use separate payrolls for each public works activity payroll as a means of obtaining the distribution. For example, there is often a payroll for street cleaning, garbage collection, sewer repairs, etc., receiving an appropriation. Thus, if a man worked on those three, he would be placed on each payroll for the time consumed and receive a check for a corresponding amount from each at the end of the week.

Obviously we provide one master payroll and one check goes to each individual for his total time. The distribution of that payroll is provided by foremen's reports and goes to the accounting office for charging the appropriate accounts. City officials welcome such changes because they provide adequate control and greatly simplify procedure.

MR. HANNON: Thank you.

J. JAY DOUGHERTY (*Member, Mills and Co., New York, N. Y.*): Is it not true that where depreciation is not recognized, the cost systems are practically valueless? In other words, many of these cities take amortization of debt which is not usually based on the same length of time as the life of equipment, with the result in some cases of not retiring the debt.

It would seem to me to be sounder accounting to put depreciation of equipment in the current budget and actually from that cash to replace the equipment at the time it is exhausted. Certainly, if depreciation and amortization of facilities is not recognized in cost, I think from the standpoint of the general public the cost systems are practically valueless.

MR. MOE: I agree with you absolutely on that. In all of our installations we do include depreciation in the cost accounts and set up replacement reserves. But when we set up replacement reserves we have to be very careful that these cash reserves do not become political footballs.

In the City of Chicago there is the vehicle tax. When that money is raised and the citizen pays a \$10 fee on his car and drives it on the streets of Chicago, that money is supposed to be used to maintain

those streets. That should be used to maintain those streets. That should not be used for anything else. The bars are lifted at the present time and a large portion of it is going for unemployment relief.

All city departments must be considered when replacement reserves are installed. If it is decided to set up a reserve for depreciation on rolling equipment in one department, a cash fund must be kept for the purpose of replacing that equipment; it should be so fixed by charter provisions. If this is not done you have a political football of thousands of dollars which can be used by an incoming administration to promote politics in their behalf and thus defeat the purpose for which it had been established.

We have to guard against all those things. I agree with you absolutely that if we want true costs we have to include wear and tear on rolling equipment. There is no question about it. If we cannot get the control in the general books and cannot set up reserves, we, at least, have to write it off on the cost record. We make provisions to do it in every case.

CHAIRMAN CORNELL: I am sorry the time for closing has come, but it is necessary to start our afternoon session promptly at two o'clock.

I am going to extend the thanks of this Convention to Mr. Moe and Mr. O'Shea for the effort and the time they have put on the preparation of their papers, and for their splendid presentation. I want your support in a rising vote of thanks.

. . . The Convention arose and applauded. . . .

. . . The meeting adjourned at twelve-fifteen o'clock. . . .

SESSION IV

THE NATIONAL INDUSTRIAL
RECOVERY ACT
AND WHAT IT MEANS TO THE
ACCOUNTANT

WEDNESDAY AFTERNOON, JUNE 14, 1933

C. H. CORNELL, *Chairman*
C. REITELL, *Discussion Chairman*

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NELSON B. GASKILL is a graduate of Princeton University and Harvard Law School. He is a member of the Bar of New Jersey and served from 1906 to 1914 as Assistant Attorney-General of that state. He was Federal Trade Commissioner from 1920 to 1925. He has for several years been engaged in the general practice of law, more particularly in the field of trade relations, and for the past three years has been President of the Lead Pencil Institute, Inc. Colonel Gaskill is the author of "Price Discrimination Under the American Can Company Case" and "Price Control in the Public's Interest," as well as the author of "Setting Sound Selling Prices," which appeared in the April 15, 1933, N. A. C. A. Bulletin.

CHARLES REITELL was graduated from the Wharton School of Finance and Commerce of the University of Pennsylvania in 1910. Following his graduation, he entered the employ of the Pennsylvania Steel Company, as cost accountant. Following two years in industry, he entered the teaching field as Professor of Economics at Elmira College. In 1915, he received his Master's Degree at the University of Wisconsin and spent the war years 1915-19 with the Bureau of Standards and the War Department. During this period, in 1917, he received his Ph.D. at Pennsylvania. Following his Government Service, he became Professor of Accounting and Industry at the University of Pittsburgh, and in 1923 entered the service of the State of Pennsylvania as Director of Accounts. In 1925, he returned to the University of Pittsburgh where he became the head of the Department of Accounting and Industry. He was, in 1931, appointed Chairman of the Greater Pennsylvania Council, an organization devoted exclusively to planning within the state of Pennsylvania, and at the present time is on a leave of absence from the University. Also, during his teaching career, he has carried on professional work in the accounting and management field and has written a large number of books and articles on accounting and business subjects. His most recent book, "Cost Accounting: Principles and Methods," was published last April. He was winner of the first prize in the Scovell Prize Essay competition some years ago on the subject "The Presentation of Costs for Executives." He was Director of Meetings of the Pittsburgh Chapter in 1925-26, Vice President in 1926-27, and President in 1927-28. He has served as Director in charge of Education, on the National Board, for the years 1931-32 and 1932-33.

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THE NATIONAL INDUSTRIAL RECOVERY ACT AND WHAT IT MEANS TO THE ACCOUNTANT

PRESIDENT BULLIS: Ladies and Gentlemen: This is Flag Day. We will all stand while Harry Whitney leads in a verse of the "Star Spangled Banner."

. . . The Convention arose. . . .

PRESIDENT BULLIS: At this time, I should like to welcome one of our charter members, Mr. C. Oliver Wellington.

The three technical sessions we have had have served as an excellent background for this fourth technical session. We will hear today about the new partnership between government and business, from an outstanding leader who is closely in touch with the situation in Washington. From his treasure house of splendid knowledge, he will give us a picture of the part we can play in the movement for a greater statesmanship in business.

There is no use hurrying if you are going in the wrong direction. We hope that business which has been headed the wrong way for several years has now turned the corner. We can afford to take several hours today to get our bearings and see how we will be affected by the new policy of the national government.

There never was a time like the present for us all. I hope in these golden days we, as members of the National Association of Cost Accountants, will become active leaders and will fill a valuable place in the Nation's work.

It is now my pleasure to turn the chair back to the Chairman of the day, Mr. Cornell.

CHAIRMAN CORNELL: The program originally arranged for this afternoon's session provided for a discussion on the debatable points in cost accounting, with Dr. Sanders and Dr. Reitell on the platform. Unfortunately, Dr. Sanders asked to be relieved of his assignment on account of the illness of Mrs. Sanders.

I know you won't think me ungracious when I say that it is fortunate for us that we are able to fill his place on our program at this

Convention with a discussion of the most important piece of legislation which has been filed with Congress, affecting industry and accounting. Its possibilities are appalling. Its introduction is rather startling, but some of its features are not entirely new to this organization.

At our Convention in Chicago in 1927, at the close of the session on "Taking Business Below Cost," Mr. C. R. Stevenson introduced a resolution which was adopted by the Association, inviting Congress to investigate the effects of the Sherman and Clayton acts on business, and to consider the advantages which might accrue from new legislation which would encourage cooperation and eliminate destructive competition.

That change which we asked Congress to consider at that time has come, and we have an opportunity this afternoon to hear something about it.

Colonel Nelson B. Gaskill was formerly Assistant Attorney General of the State of New Jersey, and formerly Chairman of the Federal Trade Commission. He is a lawyer engaged in general practice, but specializing in the field of trade relations. For the past several years he has been President of the Lead Pencil Institute, Incorporated.

I am glad to introduce to you Colonel Gaskill, who will talk to you on the National Industrial Recovery Act. Colonel Gaskill.

THE NATIONAL INDUSTRIAL RECOVERY ACT AND WHAT IT MEANS TO THE ACCOUNTANT

NELSON B. GASKILL, *President*

Lead Pencil Institute, Washington, D. C.

MR. CHAIRMAN, Ladies and Gentlemen: I assure you it is a very comforting fact to realize that there are so many cost accountants in the country, for your profession has before it as complicated, as important, and as large a task as now confronts the management of business itself.

Your position in the great movement which dates from today, is that of a vital leadership. You are no longer relegated to the background, to be called into action whenever business management finds that the margin between its costs and whatever prices it has seen fit to make, becomes too small. From now on, your work will be the vital basis for price making, for selling policy, for business control.

There are two phases of the work that you will be called upon to do. One is advice and consultation with business in the preparation of its preliminary applications to the administration in Washington. Just how far that statistical service must go is, at least for the present, somewhat in doubt, except that we all know there must be a substantial factual basis with reference to which there can be a comparison of proposed increases in wages, and possibly, increases in commodity prices.

While it is quite evident that the administration has no intention of being over-technical, of being over-exacting, it is equally apparent that the superficial guesswork, the over-broad assumption, the vague estimate, will not suffice.

In that preliminary work, your past experience will be of great value. In that work, your assistance will be absolutely necessary. However, valuable as that is, the reality of your work lies in the stages which are to come afterward.

It is evident that there is a firm, fixed intention on the part of the Washington authorities to control business operations to the end that there may be a profit to capital as well as reasonable wages paid to labor. There must be, consequently, a better managerial control of business operations, of distribution methods and processes, which will steady the competitive processes to a point where profit becomes an assured result of a sound business operation. It would be impossible for me to exaggerate, or for you to exaggerate, the importance and the significance of the relation of your profession to this work, the reorganization of business management.

If I may, I should like to speak for a few minutes about the philosophy which underlies this Act, because, unless you understand something of its economic premises, you are liable to be misled in your conclusions and in the work that you do. You must understand that this Act implies far more than a superficial rearrangement of surface effects. It strikes to the roots of age-old economic precepts and traditions.

If you will remember, the processes which led up to this legislation began with what was known as the Black Thirty-Hour Law. That was an effort to stagger employment, to increase employment by limiting the hours of labor. It became apparent that there was a valid, practical objection to that Act, not so much an emotional objection or an objection based on prejudice, but a very distinct recognition on the part of business that that Act standing alone was likely to accomplish two results.

First, by increasing the wage cost to the manufacturer, it was only too likely to lead to an increase in the use of automatic and semi-automatic machinery to displace labor. In the second place, increasing the wage cost without any promise of an addition to the general margin for profit, it became apparent that the risk of business disaster was entirely too great.

It was largely for these reasons that the administration did not back the Black Thirty-Hour Law. Immediately following upon the heels of that legislation came the proposal from the manufacturing group for a relaxation of the anti-trust laws. That movement dashed itself into foam on the rock of resistance which existed in the Congressional attitude toward the anti-trust laws. The body of opinion in Congress which still believes that the restraint of trade doctrine is necessary to the preservation of our institutions, remained unshaken. It became necessary, therefore, to join those two pieces of legislation, and out of the combination came a statement of an entirely new principle.

I think the situation can be fairly summed up in this: The time has come when it is apparent that the continuance of employment, the payment of reasonable wages, the maintenance of a sound social order which is characterized by social justice, depends upon the extent to which invested capital in business can earn not only a replacement of its expenditures, but a margin for profit. It seems to me that this interrelationship, this interdependence of interest constitutes a new concept of the public welfare.

We now have, therefore, definitely related, three things: The wage rate, which becomes the wage cost on the manufacturer's books; the commodity price; the margin for profit. And these three are component parts of one common interest. This new understanding of the consumers' or public interest throws a strong, clear light on the much-vexed question of collective bargaining by labor, for wages and work hours. If you will look back a while, I think you will see that the curse which has previously hung over collective bargaining by organized labor has been the fear on the part of the employer that the wage rate fixed by collective bargaining might push the wage cost to a point which would destroy the margin for profit, as it might easily do.

Some years ago, at the time of the last anthracite coal strike, I was told by the engineers of the government who were working with the Coal Commission, that if there had been an adequate cost accounting system in the anthracite industry, by which the production

cost and the margin for profit could be calculated, the possible wage cost with reference to the possible commodity price would definitely establish the possible wage rate. In their opinion, that wage rate would be acceptable to labor as it would have to be acceptable to industry, and that on that basis the strike could have been settled and the wage question equitably adjusted.

In other words, I think there is a great deal of misapprehension at the present time with reference to the labor clauses in this Act, simply because it is not clearly recognized that for the first time, there will be established a measurement by which the reasonable extent of wage to be reached by collective bargaining or any other process can be determined almost with mathematical accuracy, provided that you gentlemen do your work.

Back of this Act lies another idea: John Stuart Mill made it very clear that an increase in the wage rate which was equal to the increase in commodity prices, did nothing whatever for labor. He argued that the only way in which labor could be benefited was by an increase in the ratio of the wage costs to total cost and to margin for profit.

It has not been definitely stated, and I do not know that it has been definitely reduced to any exactitude in the official minds in Washington, but in the outcome of action under this law, if there is to be a real benefit to labor, if there is to be a real contribution to a steady purchasing power and through that process a benefit to industry, that result will come as the ratio of wage costs to total cost and to margin for profit, increases. That will mean a decrease in the manufacturer's excess profits. In short, the assurance of a steady profit rate to invested capital will remove the claim of justification for high profit rates at one time to offset low or less rates at another time.

The purpose is very clear that there shall be a contribution to labor, to purchasing power, to the social status, through the distribution of wages rather than by the collection of money through the taxing power and its distribution in the expenditure of money from the treasury for public works.

It will be necessary in the beginning that industry loan money to labor and to purchasing power in the form of increased wages. It is quite clear to the authorities in Washington, I think, that we cannot safely go through another winter of unemployment. The funds for private relief are practically exhausted. The possibilities of state taxation for further relief are very slight. There must be a resumption of employment, and there must be an increase in the payment of

wages. It is that crisis which has forced upon the country what can only be described as legislation which ends an epoch and begins a new era.

The old theories of free competition, of *laissez faire*, of dog-eat-dog, the survival of the financially fittest and most unscrupulous, are over. I think you can draw two red lines across the bottom of that page and begin your entries on a new sheet.

It is impossible that this shall be an emergency legislation only. Whatever of reorganization industry goes through during the next two years for the purpose of meeting this emergency will not be a temporary statement from which industry will retreat to its former positions or its former methods, or habits, or customs. This reorganization will be the point of departure for further development of what I think can be called a regulated competition instead of a free competition. You might also use the phrase, if you like, of a systematized democracy.

I think there is dawning upon the public mind a recognition of the fact that there is a community of interest which includes the manufacturer, laborer and the consumer, and runs through the entire social order. I think there is developing a new understanding of the community of interest in the management of invested capital as the agency through which the device of private property must serve the social objectives. I think we are beginning to see the necessity for a protective regulation of the methods of use of capital in order that it may meet the needs of the community for its commodity supply, may furnish, in a constantly moving circuit, the purchasing power which enables the consumer to buy and, in return, enables the manufacturer to employ.

There must be an end to the destructive practices which have been regarded heretofore as the essence of individual economic liberty. Just as it was recognized that political liberty meant, nevertheless, government under the law, so are we coming to the point where we are recognizing that economic freedom is, after all, government under principles of economic control.

The loss-taking factor, the loss-making practice, the use of capital for the purpose of taking losses in order to extinguish competition, the idea of taking losses with the hope or the expectation that there will be a future gain, must be a steadily diminishing factor in our economic experience from now on.

That there will have to be a tremendous reorganization, particularly in the field of distribution, goes without saying. I think we are

just at the beginning of a recognition of the fact that there has been no method, no principle, no control in the field of distribution. And without any control of method or mechanism, distribution has grown into an absolutely disordered mass of practices and customs, most of which are directed at beating down prices instead of maintaining prices at the level which will enable wages to be paid and a proper compensation to be made to the producers of raw materials.

Consequently, I think you must vision the United States from now on as engaged in a collective endeavor to do three things by individual initiative under systematic control; first, to produce an adequate commodity supply; second, to assure continuity of employment and the payment of reasonable wages; third, to secure the replacement of capital expended and its increase. There will be less concern than formerly for the purpose of serving the individual greed, the individual selfishness, or, if you like, the individual pleasure in the avenue of economic liberty. I think it can be safely said that there is no intention, no expectation, that this legislation is a drift toward Communism or toward Socialism. As a matter of fact, for myself at least, I can say this seems to me distinctly an effort to mark out a hitherto unknown territory which was not supposed to exist, between the old concepts of Capitalism on the one hand, and Communism as the alternative.

If we can work out a method of control by which the individual use of the private property device is maintained, but under conditions which ensure in the use of that property device a return of the expenditure which is involved in its use with a margin for profit; if we can make a price system operate so that the last iota of needed supply will nevertheless come forward to the consumer, but always with a return of cost; if we can modify our old ideas of price and value to state them in terms of this new concept of a replacement of expenditure, there is the possibility of our building in the United States an economic sovereignty the like of which the world has never seen.

There is no necessity for us to follow down the beaten track of despair which the old world has followed. We are carving out, as I see it, in America, a new economic idea as we carved out a new idea of political liberty. If that movement can succeed, there is no reason why we should have any apprehension whatever with reference to Communism or Socialism. We should see on the other hand, the individual liberty, freedom, opportunity, but under equal terms and terms always that state the individual contest in the relative ability of different men, rather than in their financial power.

If we can grasp that philosophy and see that philosophy underlying this law, and strive toward that end, we immediately begin to put within the reach of possibility the ideas of social justice which have plagued our consciences so long.

Under the old economic formula, it was always necessary that there should be a shortage of supply. It was always necessary that there should be someone, some part of the social order, in poverty. On the old theories of price and value there could never be an equality of supply and demand without the disappearance of price and destructive loss to the manufacturer and to the distributor.

Under that ruthless economic theory which has governed the civilized world now for 200 years or more, social justice was an impossibility. It was always a question as to how far a satisfied majority could control a justifiably dissatisfied minority. With this new concept, it becomes possible for us to work toward a social order in which poverty may be eliminated, in which there need be no shortage of supply, in which the conduct of business, intelligently and scientifically governed, can be assured of a reasonable profit. And in that concept, it seems to me, it becomes necessary for you to approach your work.

You are going to be met with the ideas and the states of mind of many men to whom the ideas at which I have hinted in a rather vague way, are so foreign and so strange that they are utterly—I will not say unacceptable, but—incomprehensible. It will be your job to act as interpreters; it will be your task to seize upon the men, the younger men, if you like, whose minds are open to a new idea, to spread that idea and give them the vision which you yourselves have, of a constantly brightening future.

I have no intention of talking to you today about the details of this Act. They are written rather plainly in the statute, and after that they become matters of administrative detail. However, there is one thing which I would like to say to you, as I have with this audience before ventured to rush in where an angel might hesitate. There is a strong and an almost absolute necessity that as uniform cost accounting becomes the practice of industry, there should be a uniformity of method and of understanding among cost accountants.

That will arise as a necessity because in one industry which has to deal with a selective or alternative commodity whose cost accounting is worked up on a different basis, there may be a disparity in cost and price arising out of methods of accounting. This would be just as injurious to conditions between those two industries as the ab-

sence of uniform accounting would be between two firms in the same industry.

There has been—I do not say justifiable criticism, but—criticism of the difference of opinion among you, of the differences in methods which you follow, of the inability of cost accountants to agree, which has done your profession no good.

You now come to a point where you no longer function for the individual. You come now to a point where you function for the Nation, and just as there is to be a uniformity of cost accounting practice and theory in the particular industry, so I think it is absolutely desirable that you should arrive at some definite understandings among yourselves with reference to uniformity in your own work. It should no longer be said that the cost accountants are unable to agree among themselves.

I think I have talked to you long enough. I have made you no set speech but have tried to open your minds, to set you thinking, rather than to do your thinking for you. I was brought here as a "handcuff volunteer," to help you if I could. Possibly you would like to ask some questions although I fear to most of them I should have to say, "I don't know." However, I shall try to answer your questions if you will state them.

CHAIRMAN CORNELL: Thank you, Colonel Gaskill, for that splendid talk, and thank you for coming here on such short notice to appear on this program.

I have no doubt but that there are a large number of questions to be asked from the floor, and it is fortunate that we have a man on the platform who has already been introduced to you, who is splendidly equipped to handle the discussion on this Act.

Mr. C. Oliver Wellington is a partner in the firm of Scovell, Wellington & Company of Boston and New York, a member of the American Society of Mechanical Engineers, and, as you have heard today, a charter member of the National Association of Cost Accountants.

It is also fortunate that the second part of our program fits very nicely into this discussion. We had arranged, you will remember, a session on debatable points in cost accounting with the thought that it was time to have another one of those sessions such as conducted by the late C. H. Scovell in 1924, 1925 and 1926. We thought we had a man on the National Board of Directors who could and would undertake such a session.

Dr. Charles Reittel has had a varied experience in educational and

professional lines. He is the head of the Department of Accounting and Industry at the University of Pittsburgh, from which institution he is now on leave. In 1931 he was appointed chairman of the Greater Pennsylvania Council by Governor Pinchot.

In making a list of his debatable points which he wished to discuss with you this afternoon, he listed as the first one a question as to what is this National Industrial Recovery Act. The two things go together very nicely. I am going to ask Mr. Wellington to speak to you now. I am going to ask him and Dr. Reitell to take charge of the discussion on this Act after which Dr. Reitell will conduct the rest of the session on his debatable points in such manner as he may see fit. Mr. Wellington.

MR. WELLINGTON: Mr. Chairman, Ladies and Gentlemen: For over fifteen years I have been rather closely connected with the trade association movement, helping a number of groups of manufacturers, especially toward uniform methods of determining costs in various industries, and I am particularly pleased that this Act has emphasized to the average business man the importance of a trade association.

Mr. Stevenson's remarks in 1927, as quoted by the Chairman, emphasize again that the idea of cooperation in a trade or industry through an association is not a new idea but simply one that has been reemphasized at this time. Many if not most of the good features of trade association work could have been carried out long prior to the passage of the National Industrial Recovery Act. If any trade group really wished to cooperate and stamp out bad competitive practices results could have been obtained years ago. I hope and expect that one of the important results of the present Act will be to demonstrate to individuals and groups the advantages of cooperative action, so that such action may be carried on long after the so-called emergency is over.

You will remember that there was a similar situation when the income tax law was first passed. Many of the smaller companies, firms, and individuals protested at the requirements for detailed accounting necessary to prepare the income tax returns. The results have been, however, that forcing the small businesses to keep adequate books and records and thereby know more about their own business has helped the average concern to a greater extent than would be measured by the taxes paid. Similarly, under the Recovery Act I believe reforms will be forced on individual

concerns and trade groups that should have been brought about years ago, and bad conditions will be corrected which would never have been remedied unless there had been the compulsion as called for in the Act.

I am particularly pleased to have Colonel Gaskill review the philosophical and political background for the Act, as a clear understanding of the forces that have been working upon business in this country is very important if we are to work out a practical solution for the best interests of all concerned.

We are all very much interested in just how the operation of this Act will affect our own company or our own trade group, and if Dr. Reitell will not object to taking a certain amount of time it seems to me that practical questions asked Colonel Gaskill will help a great deal to enlighten all of us.

. . . Dr. Reitell assumed the chair at this point in the proceedings. . . .

CHAIRMAN REITELL: Ladies and Gentlemen: Now we begin the fireworks if we can get them started right. You will note that we have no written speeches. Both the Colonel and Mr. Wellington spoke without any notes, and I think that is a good thing to keep going right along through the afternoon.

In other words, we are, as the Colonel just said, entering a new era in industry. That new era, as I see it, means a tremendous responsibility to us as cost accountants. I hope we will immediately turn that responsibility into an opportunity. That opportunity is to see that we as professional cost accountants use our intelligence and our working capacity to contribute to the full in seeing that not only the government, but more important, American industry gains that advantage which I believe we are able to contribute.

I know there are lots of you who have specific questions to ask Colonel Gaskill.

EDW. WM. KRUEGER (*Walton, Joplin, Langer & Co., Chicago, Ill.*): I will break the ice. The most important thing that I can see is the establishment and maintenance of commodity prices. In that calculation comes a question of what is a fair rate of profit. So the work which is important hinges on the government's interpretation of what is a fair rate of profit. I have heard it is 10% on invested capital, which is quite a shock to corporations at present.

It would be a great help to us if we had some sort of an idea as to what the government considers a fair rate of profit. It will help the

establishment, as I see it, of minimum prices necessary to really effectively put this law into operation.

COLONEL GASKILL: No official statement has been made, so far as I am aware, with reference to any rate of return on invested capital which would be regarded as reasonable. I think it can be more safely said that each industry's approach to the Administrator will be dealt with upon its own particular merits.

It may very well be, in the beginning, that until it has been discovered how far there will be an increase in the volume of sales or how far a commodity price increase can be justified, that the best an industry can look for is an operating profit without reference to a fixed rate of return upon invested capital.

So far as I am aware, the administration has not laid down any rule as to whether it would regard as a basis for price the highest amount of invested capital or the lowest, whether it would regard the high cost producer or low cost producer or whether it would consider the cost and margin of the average.

I think the disposition of the Administrator is to approach that subject, as I say, with reference to the conditions governing in each industry, rather than to lay down fixed and rigid rules which might create difficulty in their application.

One of the problems with which the administration is struggling at the present time is the fact that commodity prices have advanced at a more rapid rate than wages or purchasing power. There is a very considerable fear, I think, in official Washington that the disparity between wages and purchasing power on the one hand, and an increasing scale of commodity prices on the other hand, may produce reaction.

Consequently, I should say that each industry from the point of view of its own situation, which may be different with reference to different industries, should begin with the wage increase which they can reasonably make in view of their inspired guesswork as to what the profits will be from a reorganization of methods and processes and an increase in volume as purchasing power flowing from wages begins to circulate through the consumer trade.

GEORGE D. GASKIN (*C. P. A., New York, N. Y.*): What effect will the fixation of minimum wages have on the exports of United States products?

COLONEL GASKILL: I do not think I can answer that. My belief is that there will be no effort to control the prices in exports,

that whatever regulation is applied to industry in control of its methods and its prices, will be with reference to domestic trade. Consequently, while the increase in the wage cost would possibly make it a little bit more difficult to sell in export trade profitably, at the first blush I should say that so far as the administration of the Act is concerned, it would exclude export trade.

HOMER A. DUNN (*Retired Partner of Haskins & Sells, New York, N. Y.*): Colonel Gaskill, will you please tell us your opinion upon the question of whether or not the requirements of the operation of the Recovery Act will accentuate the need for budgeting volume of production in the different associations? Broadly, will it accentuate the need?

COLONEL GASKILL: The question is whether the application of the Act will accentuate the necessity for budgeting the volume of production, and in the purchase of raw materials, and so on.

I should say, decidedly, "Yes." There will be, in all probability, a decided brake upon the movement to obtain profits by a constantly increasing volume of production and sales, as the profit element in sales becomes practically a compulsory requirement.

Consequently, in those lines of industry where the advance, or policy toward advance, has been along the lines of a constantly increasing sales volume, it seems to me that it will be necessary to revise that policy somewhat and to hold inventory in check by a sales estimate. That necessity will of itself, it seems to me, be reflected in an increasing necessity for a budgeting of processes throughout.

In other words, instead of management being, as it has so often been heretofore, a sort of speculative process which was based upon a production volume in the hope of an increased sales return, there will have to be a beginning of management at the place where management should begin. That is, with reference to the sales possibilities, a budgeting of all operations checked, as I see it, by a constant observation of the sales chart. In other words, I think the probabilities are that there will have to be a reversal of managerial experience, and that necessarily will make budgeting the beginning point rather than a check-up on operations, as it has too often been.

GEORGE V. LANG (*United Engineering & Foundry Co., Pittsburgh, Pa.*): Will the Administrator of this Act designate a few large trade associations to cover the field, to which each corpora-

tion would be assigned, or will he recognize a thousand associations in existence right now? It seems like a duplication of effort in some of our trade associations.

COLONEL GASKILL: Theorizing, my answer should be that the Administrator should deal with the larger groups, even though the larger groups work through branches or divisions. I understand that about 300 trade associations or trade groups have already filed codes for approval, and that about 300 more are expected to do so. There are in the neighborhood of 1,800 to 2,000 trade associations. Outside of them is a vast mass of unorganized industry.

Consequently, my expectation is that the Administrator will deal with any coherent integrated group which comes before him with a definite program, with the idea that so much being disposed of, he will be freer to deal with the greater job of unorganized industry.

I understand also that the major consideration will deal with the five industries—steel, coal, oil, textiles, automobiles—which are responsible for about 70% of the employment in the United States. After that, I do not believe that the group which goes to Washington and can say it is representative of or is a branch of an industry, will be turned back to wait until all the branches of that industry, if you like, come forward under one head.

MR. LANG: On uniform practice, is it possible that some sort of movement could be started through the National Association of Cost Accountants, through possibly a committee working with the Administrator, to iron out some of the variations in the uniform methods?

COLONEL GASKILL: I am rather fearful that it would take too long, that the variation in ideas in the several industrial groups is too pronounced, and that the effort to apply uniformity to them would create dissension and delay. In the beginning, at least, whatever modifications the individual in the group may require later on, the effort should be to find the minimum which will satisfy the Administrator. By that course I think, a greater speed will be obtained, and speed is the essence of the program.

MR. CASTENHOLZ: Combined with the establishment of commodity prices, will anything be done through taxation to adjust the differential in profits among the producers in a given industry?

COLONEL GASKILL: I have not heard that discussed.

MR. CASTENHOLZ: If the price is fixed, which is, say, possibly on an average in an industry, to permit a certain profit or certain return on the investment, your high cost producer, of course, will barely make the grade, if at all; whereas, the low cost producer will, of course, reap very handsome profits.

I was wondering whether the government expected to adjust those differences in the same way they did after the war and during the war, through excess-profits taxes.

COLONEL GASKILL: I cannot say. I have heard no expression of opinion about that. There is a hope, at any rate, that the competitive processes which naturally tend toward the elimination of the marginal operator or high cost operator, will still be allowed to continue, and that there will still be a process of elimination. That might very well be a part of the pressure, to which you refer, upon the high-cost producer.

MR. CASTENHOLZ: That is the point I wanted to find out. In other words, there will be no artificial stimulation in favor of the marginal producer. He will have to make good or get out of the field.

COLONEL GASKILL: That is it, exactly.

A. R. M. BOYLE (*Lehn & Fink Products Co., New York, N. Y.*): In those industries where there is an intense competition, there is a big difference in the cost because of advertising. Will the disposition of the government be to take the price of the nationally advertised or private brands?

COLONEL GASKILL: The gentleman refers to the difference in the cost of marketing nationally advertised brands with the advertising as a part of the selling cost, as against the lower cost of marketing private brands which do not carry the advertising. He inquires whether, as a basis of price fixing, the government will take the price of the nationally advertised article or the private brand.

I can give you only guesswork because I have heard no expression of opinion about that, with this exception: In so far as the private brand operates in the market upon a price basis which means low wages both to its producer and to its distributor, it will be discouraged as a price factor in the market in which it operates.

I think there is a very general recognition of the fact that one of

the elements which has tended to pull prices below the profit level of decent wage-paying industries, has been the private brand which too often emanates from what is called "sweatshop" labor. No competitive price which is dependent upon sweatshop labor or inadequate wages will, in my opinion, be justified or sustained as the basis of an industry price level.

I think, as a matter of fact, that if the effect upon distribution which follows price stabilization, is to relieve the distributor of his fear of price cutting in standard lines, the tendency will be to develop distributor volume in the branded merchandise and to discontinue the pressure toward the private brand which is the distributor's own possession.

Personally, I look to see, as a result of stabilization of prices in distribution, a lessening of the movement toward private brands.

T. M. McNIECE (*Market Analyst, New York, N. Y.*): Will you tell me how far the Act will go in price control on intrastate versus interstate business?

COLONEL GASKILL: The Supreme Court has already decided that when it is necessary to control intrastate commerce in order to make a control of interstate commerce effective, intrastate commerce can constitutionally be controlled also.

GEORGE CLAGHORN (*Public Accountant, New York, N. Y.*): Trade associations are being organized by concerns now actively engaged in industry. What provision will be made for new business organizations?

COLONEL GASKILL: There are two possible answers to the question of entry of new industry. If it can be shown, as in most cases it could be shown, that an industry now suffers from over-capacity, it is extremely likely that if the industry protested the entry of a new productive unit, to the administration, that the first effort of the administration would be to discourage the new unit.

If that effort was not successful, an application might be made to put the industry under license and to deny license to any new factors. On the other hand, if the industry comes anywhere near a stabilization of price, or even to establish the minimum price upon minimum cost, there would be a check on the ability of any new unit entering the industry to "muscle in" so to speak, by sacrifice prices.

The license factor, however, I think would be the more powerful and probably the more effective remedy.

B. M. SAYRE (*Carrier Manufacturing Corp., Newark, N. J.*): What effect will the enforcement of this Act have on existing labor organizations? Does the Act tend to encourage labor organizations?

COLONEL GASKILL: Decidedly. There is no intention, as I understand it, in the official circle, to encourage labor organizations in any unreasonable or any unduly exacting attitude. I think it can be said they recognize the necessity for a control on some phases of organized labor activity, as well as they recognize the necessity for control upon some phases of manufacturing activity.

T. A. MULVANEY (*Pyrene Manufacturing Corp., Newark, N. J.*): If production limits are controlled by industry, will not small organizations be in better position than large organizations having heavy overhead?

COLONEL GASKILL: I question whether one can generalize as broadly as that. If the large organization happens to be well set up and well governed financially, if it happens to have an established consumer good will, if it happens to have some other elements in its favor, it does not necessarily follow that the smaller unit would have any advantage over it.

On the other hand, it very well might be that some of the smaller plants by their mobility, the ease with which they may change, the ease, for instance, with which they may change price lists and handle contacts with customers on a new basis, may give the smaller unit a decided advantage. It may be also that some of the smaller concerns—which heretofore have been maintaining a marginal position, seeking distress orders, upon a cut-price basis, being compelled to raise wages and put under, if you like, some restrictions as to quality of product by a standardization or simplification program—might be under a handicap that would be greater than the large organizations would find.

I think it is one of those questions which turn up on the individual facts. I question whether you can generalize on it.

L. S. ZAHRONSKY (*Wiremold Co., Hartford, Conn.*): May power given the President to license business be interpreted as applying only to recalcitrants who fail to take advantage of benefits obtainable through trade or other associations?

COLONEL GASKILL: I do not wish to quibble about the form in which the question is put. The question is whether the

license factor applies only to recalcitrants who fail to take advantage of the benefits obtainable under the Act. It might apply to those who refuse to comply with the terms of any uniform code which may be prescribed by the President for organizations or for industries which do not voluntarily come under the Act.

It might also be, as I stated a while ago, applied to prevent the entry of new units into an overcrowded market. It is also for the purpose of controlling and coercing recalcitrants.

ALBERT B. COLBY (*Geo. B. Hurd & Co., New York, N. Y.*): When and how will the codes adopted by associations be made into law? Can appeal be taken from these codes, and how?

COLONEL GASKILL: Any dissenter to any code which is proposed by any industry, should present his dissenting argument to the Administrator. Public notice will be given by the Administrator of hearings upon all codes which are presented for approval. After the code has been ruled upon, after the dissenter has been given an opportunity to be heard, it is rather questionable whether there will be any subsequent appeal. It is conceivable that there may arise under some of these codes a question as to whether they do not involve some violation of law, whether the Administrator might not have allowed something to be done which was beyond his power.

It is conceivable, therefore, that in certain cases there might be a judicial review as to whether certain regulations approved by the Administrator were within his power under the law.

DWIGHT D. FARNHAM (*Peat, Marwick, Mitchell & Co., New York, N. Y.*): Can you give us an outline of the topics which a code should cover to render it acceptable?

COLONEL GASKILL: There is no model code adopted by the Administrator. The National Association of Manufacturers has put out a standard code of which they will be glad to furnish anyone copies. There is a standard form which has been issued, I think, by the Department of Commerce, that was prepared by Dr. Haake of the Furniture Manufacturers Association.

There are two or three forms of that character. If you want anything of the sort, write either to the Chamber of Commerce of the United States at Washington, or to the Department of Commerce at Washington, and tell them what you want. They will send it to you.

JOHN A. COOKE (*Peat, Marwick, Mitchell & Co., Chicago, Ill.*): If a group agrees upon a code and upon presentation it is not acceptable to the Administrator, what are the mechanics for speeding up final decision?

COLONEL GASKILL: Well, I do not know that I can answer that, except to say a baseball bat would be useful. I do not think the Administrator is going to monkey with this law or allow anybody else to monkey with it. In one or two instances which have already arisen, where tentative applications have been made, instead of assuming the burden of deciding any conflict of opinion, the Administrator told one group to go into a room and take their disagreement in there and leave it, and if they did not, he would license the whole bunch. They left their disagreement behind them and came out with their arms around each other's necks.

MR. CASTENHOLZ: Upon what standard of living will wage rates be based? Will this standard, if any, be the same for all kinds of labor?

COLONEL GASKILL: That is one of the most troublesome factors in the entire situation. Speaking personally, it is impossible to relate a wage rate in any industry to any particular standard of living. For instance, a standard of living may be possible to a highly paid laborer in a community, as, for instance, carpenters, masons, and so on. They may set among themselves a standard of living which would be absolutely impossible in an industry where the margin for profit was necessarily low, where the price of the commodity was low, and where the ratio of wage cost to commodity price would not permit of a very wide spread.

I think the effort to find a reasonable wage has been approached from two points of view. One is the standard of living, and the general idea is that it ought to be a wage scale which will do more than maintain a bare existence short of starvation. The other is a very clear mathematical relation of wage cost to commodity price, and the commodity price may very well be a low price, necessarily low because of competitive commodities and their prices, which would make impossible the payment of a high rate of wages.

Therefore, I do not think you can reach any sound conclusion as to reasonable wages with reference to any particular standard of living. The very fact that there is a difference in wage costs and a limitation upon the possibility of the difference in wage costs, makes

it impossible that there should be the same standard of living for all kinds of labor. Theoretically, I think it is desirable; practically, I do not think it is possible.

CHAIRMAN REITELL: There is no need of sending up any more questions. We have enough questions to keep the Colonel busy for at least an hour and a half. I think we should limit our questions to what we have here. We have already imposed too much upon this good gentleman.

GEORGE E. LEITCH (*Burroughs Adding Machine Co., Detroit, Mich.*): Do you think that the application of this Act will tend to discourage investment of capital in American industry because of the fixed return?

COLONEL GASKILL: No. I think the assurance of profit is all that is necessary to attract capital. The assurance of profit, I think, is a stronger inducement in the long run than the possibility of a high return at one period, necessarily to be followed by the disappearance of profits at another.

J. W. OLIVER (*Linen Thread Co., New York, N. Y.*): Will interest on invested capital be permitted in calculating cost?

COLONEL GASKILL: I do not know.

MR. OLIVER: If under the new Act labor organizes so completely as to make wage demands which they are able to enforce, what will become of a reasonable return on capital?

COLONEL GASKILL: Practically, the Administrator will be charged with the responsibility of seeing that that does not happen. There are two factors in this situation which I think are very clearly recognized and which are entitled to equal recognition. The wage rate and the capital wage stand on a parity of justification. Practically, the emphasis will be put upon the payment of the wage rate first, for the purpose of drawing funds out through the manufacturer into purchasing power. Subsequently, as that process continues, undoubtedly there will be given reasonable attention to the propriety and justification of a return on invested capital. But clearly, I think the authorities recognize the fact that they must control the demands of labor to prevent an undue increase in the ratio of the wage cost.

H. D. ALLEN (*Attorney, New York, N. Y.*): Along those lines, is there any such provision in the Act making any ruling of the Commission mandatory upon labor?

COLONEL GASKILL: At the moment, I do not think of any. I am not sure whether there is or not. I am rather of the opinion, however, that it is within administrative discretion. We can all hope it is, at any rate.

W. SYLVESTER (*C. P. A., Baltimore, Md.*): Why do you think American industrial associations in staple commodities should be more successful than European ones which failed?

COLONEL GASKILL: The failure of the European cartel was almost entirely due to the lack of any police power in the industry which set it up. The cartel failed for the same reason that most of the illegal agreements made in this country ultimately fail. Just as soon as it becomes of advantage to some competitor to undersell those who have agreed upon a price, or to make more than the others have agreed to make, for the same purpose, he does it. If they try to put coercion upon him, he resigns from the association. He walked out from the cartel in exactly the same way. Practically the only foreign cartels which were ever in any degree successful were to some extent, at least, under governmental control.

The thing which the American trade association has needed and required for years is that power of control of a dissenting minority, whether it was ignorant, greedy, willful, malicious, or whatever it was. Under this Act, for the first time, that control exists. With that control, there is no reason why the trade association, reasonably conducted, intelligently managed, should not succeed, simply because it now has that which no organization of the kind either at home or abroad has before enjoyed.

R. E. GRAVER (*Mohawk Mining Co., New York, N. Y.*): Is it likely that the government will reject bids made by companies paying low wages or offering goods below cost?

COLONEL GASKILL: Well, all I can say is that they should. Whether they will have sense enough to do it, I do not know. There is talk at the present time of a concentration of the whole governmental purchasing power in one buying contracting agency. I should take it almost for granted that the Administrator of this Act will endeavor to protect the associations which are raising wages

under his protection, from injury by government purchases quite as much as he would be inclined to protect them from purchases of similar character by private consumers.

H. J. KEATS (*William D. Gibson Co., Chicago, Ill.*): How would prices be controlled for a corporation which makes all of its products to customers' specifications?

COLONEL GASKILL: Probably under those circumstances there would be required from a manufacturer of that character and all his competitors, agreements not to sell below their individual cost.

E. F. BALDWIN (*Atlantic Carton Corp., Norwich, Conn.*): In establishing minimum prices and costs, will consideration be given to excess capacity and if so, what will be the basis for costs?

COLONEL GASKILL: You have some theories of your own about the calculation of costs with reference to excess capacity. I should suppose that your methods of calculating cost upon the part of the productive capacity which is being used, and charging the cost of the balance not against production, but against the general margin for profit, would be followed.

A. R. KASSANDER (*Lybrand, Ross Bros. & Montgomery, New York, N. Y.*): What effect will the Act have on existing long-term contracts?

COLONEL GASKILL: Long-term contracts at prices which conflict with the prices which will be made necessary by new wage scales will be subject to considerable moral pressure at least, for reconsideration and restatement at prices which will enable the higher wage scales to be paid.

J. B. BROWN: Will it not be necessary to make an elaborate geographical division of major industry to fix a minimum wage scale in accord with existing conditions in each section of the country? If your answer is affirmative, have you not fixed a different cost for the same article within an industry?

COLONEL GASKILL: Yes, to both questions.

T. H. HUGHES (*General Printing Ink Corp., New York, N. Y.*): What provision is contemplated to prevent an increase in labor racketeering?

COLONEL GASKILL: I think no definite statements have been made on that subject. I think the administration will wait to see what manifestations along that line, if any, appear. I think it can be expected that they will recognize the fact that there is a limit to which the wage cost can be raised. As I say, that now comes to be practically a mathematical relationship, particularly as uniform cost accounting is established. The possibilities of an increase in wage cost are thereby stated. No industry will be coerced into accord with the demands of labor which are unjust or unreasonable. I think you can take that for granted.

JAMES W. KELLY (*System Brake Service Corp., Newark, N. J.*): What part will trade associations have in the establishment of new policies under the Recovery Act?

COLONEL GASKILL: The administration, I think, recognizes the fact that the success or failure of this legislation depends upon cooperative efforts of industry and not upon the coercive power of the Administrator. The responsibility for the inauguration of corrective policies and new policies in business very distinctly lies with business. This is, I think you can say, self government in business plus governmental supervision and policing.

ARTHUR L. CHANDLER (*Millers National Federation, Chicago, Ill.*): What is your idea as to how far the administration is prepared to go in policing and enforcing trade rules?

COLONEL GASKILL: My idea is that the policing of these trade rules in the first instance will be a function of industry. I think the administration will not attempt to set up any great bureaucratic administrative force, nor any great force of secret service men such as would be necessary to police the industries of the United States. I suppose industry will be required to collect adequate proof of violation and after they have argued with the violator and attempted to get him into line unsuccessfully, to take that proof to the Administrator and ask for coercion.

There are alternative remedies. There is the possibility of indictment and a fine. There is the possibility of application to the Federal Trade Commission for restraint of the violation as an unfair method of competition, in addition to the coercive power of the Administrator.

MR. OLIVER: How will a wage level of 25¢ per hour in Indiana be reconciled with the wage of 60¢ per hour in New York City in the same industry?

COLONEL GASKILL: I do not know that that question can be answered categorically. I do not know, for instance, that 25¢ per hour would be regarded as a proper wage in Indiana. I do not know that 60¢ per hour would be regarded as a proper wage in New York City. This question of wage rates is one which is still being studied, and with reference to which no definite statements have been made.

It is clearly recognized by the Act that there may be different wage rates in different localities, and beyond that, I do not think there is any definite information at the present time.

H. E. HOWELL (*Grinnell Co., Inc., Providence, R. I.*): Will new patents and processes automatically be discouraged?

COLONEL GASKILL: No. I should see no reason why they should be.

C. O. JACOBY (*Union Carbon & Carbide Corp., New York, N. Y.*): If an industry fails to agree on apportionment of volume of production, what action will be taken by the Administrator?

COLONEL GASKILL: He may take no action. He may send industry back to make an agreement. If it is necessary to control the volume of production in order to get an adequate or reasonable wage scale in that industry, he may put the industry under license, or if they do not agree and voluntarily cooperate, they may be made subject to a uniform code which the President may announce with reference to all industries which do not voluntarily cooperate.

F. A. SHALLENBERGER (*The Brager Co., Baltimore, Md.*): Is it the purpose of this Act to control retail prices? Certain large chain stores and some large department stores use advertised articles as leaders. In some instances, these articles are offered for sale below wholesale prices. Will the government still permit this?

COLONEL GASKILL: There has been very little said officially with reference to the extent to which the manufacturing interest might control distribution. I think there is a gathering feeling of a

considerable extent, that control must come from the manufacturing end of the price quotation. The manufacturer, at least, must see to it that the prices which he quotes to distributors are adequate to maintain proper wages by the distributors.

I think it can be said that the loss leader practice, wherever it appears, is not approved and is very likely to be strongly disapproved and eliminated. It is well recognized, I think, by those in charge of this Act, that the loss leader practice, the consistent price cutter, the distress marginal operator, are all factors which must be controlled in the interest of a price which will maintain a reasonable wage scale.

You will understand, of course, that in all of these replies I have been giving you my own opinion, my own views as I have obtained information from various sources. I want to disassociate these replies clearly from any official status because the Administrator and his aids have been very careful to make no official statements. I certainly have no authority to commit or attempt to commit or state the position of the Administrator on anything.

If I have been of any service to you, or any assistance, I am very grateful for the opportunity.

. . . The Convention arose and applauded. . . .

CHAIRMAN REITELL: I know we are full of appreciation for the fine service Colonel Gaskill has given us. I feel it would be a terrible imposition for him to go further with the large bundles of questions we have.

I feel there are many in the audience who have some suggestions, opinions and so on, regarding this Act, that should be expressed. I have talked with several of you and know how interesting it is to you. I am wondering if we cannot have discussions from the floor, carried on by you people. After all, we have just had the questions and answers so far, and I fear some of you have not had the opportunity to express certain opinions that you have regarding this Act.

I have quite a few pronounced opinions, but evidently Dr. McLeod knew I had, so he put me in a position where I cannot sound them. However, that does not in any way limit you.

I have a question here, addressed by someone in the audience, asking that instead of waiting for the Year Book, we have the speech of Colonel Gaskill and also the questions and answers published in the next Bulletin.

H. D. ANDERSON (*Scovell, Wellington & Co., Syracuse, N. Y.*): Inasmuch as I cannot be at the meeting of the National Board of

Directors tomorrow, I will see that the request is put before the Board. I think that it will be carried out. Certainly, it is heartily approved by the group.

G. A. HORN (*Tabulating Machine Co., Buffalo, N. Y.*): I should like to comment on the maximum hour feature. Reference was made to the Black Bill, the Thirty-Hour Bill. The industry in which I am engaged (I am not a cost accountant; I am an engineer) has been considering this matter in preparation of some preliminary thoughts to the committee of the industry. I want to comment on that feature just for a moment, and express an opinion, that from our viewpoint and that of kindred industries, the thirty-five or thirty-six-hour week, all things being considered, at the present time has many advantages over the thirty-hour week. There are several million people employed in the country on what is known as the shift basis, the twenty-four-hour basis. Almost exclusively the six-day week prevails now against the old seven-day week, and the almost uniform arrangement is the forty-eight-hour week.

In our industry and in others, I believe, which are on the twenty-four-hour basis, four six-hour shifts instead of three eight-hour shifts would affect several million people throughout all the industries of the country. Therefore, in making such adjustment on the basis of four six-hour shifts, you have a simplified arrangement which in many industries, I think, would be found acceptable.

In the type of work which is not continuous, not shift labor, such as the clerical force and perhaps a large part of the help who are not on the shift basis, we think thirty-five or thirty-six hours is also feasible, particularly on the five-day week, seven-hour day. Or in such industries, ours being one, where of necessity, as in the food business, part of Saturday has to be used, we are thinking of a six-and-one-half-hour day for five days, making thirty-two and one-half hours, and three and one-half hours on Saturday, making thirty-six hours.

I merely make this suggestion, having been thinking about it for some months, as one which would come pretty close to the largest part of employees of all kinds and would be a great deal simpler in many ways than the thirty-hour week and not quite such a drastic change.

MR. LYONS (*Pittsburgh, Pa.*): You mentioned the fact, Mr. Chairman, that you are in the position where you cannot present your own views on this. If it is not out of order, I should like to ask you to tell me something.

What is the immediate job of the cost accountant under this Act?

CHAIRMAN REITELL: I think that question should be answered and will be answered probably more intelligently than I can answer it now, by the Board of Directors at their meeting tomorrow in which this whole matter soon will be thrashed out.

My personal feeling about the matter, if I may state it, is three definite things: first, I think we can be of tremendous service in the matter of uniformity and classification and in educating ourselves as rapidly as possible as to the service that is needed for our particular plant or enterprise, working into the code and working up the code so that when regulation comes, we are adequately and properly fitted for it.

I think our first job—certainly I feel it is my first job in the several industries I am interested in—is to know the law, and, knowing the law, to see that my firm prepares its statements and gets its data ready. I would probably put that first.

The second I probably would list as the matter of getting into the trade association to see what we can do to get uniformity. I think that is extremely important.

Last of all, of course, is the importance of the cost accountant in contributing his data in relation to prices and price establishment.

CHARLES C. JAMES (*Consulting Accountant, Stevenson, Jordan & Harrison, New York, N. Y.*): It seems to me the sense of this whole thing is that industry is on trial. If it kills the goose that lays the golden egg again, it is not going to have another chance. We, as cost accountants, have for years been faced with a rather supercilious attitude on the part of the sales people when we laid our costs in front of them. They have been inclined to say those costs were interesting, but they did not control pricing. Pricing was controlled by competition. That day has gone. Competition, if it means destructive price cutting, is going to be a thing of the past.

It is our job as cost accountants, to tell our management immediately what is the cost of our product and what that cost should be. It then becomes the job of the management to get its cost down within a reasonable price level. If that cannot be done, then I am sure these marginal producers that Mr. Castenholz was talking about, whose costs would compel a price level considerably above what industry can pay or what labor can pay, are simply going to find themselves washed up. And if that is not a man-sized job, I give it up. It seems to me the sense of this whole thing is that the

President of the United States expects every cost accountant to do his duty.

CHAIRMAN REITELL: Thank you, Charlie.

LEWIS F. SAWYER (*81 Cypress Avenue, Lawrence, Mass.*): There is one question in connection with this that I have not heard raised. What is the effect of this present tariff discussion going to be whereby we decrease our tariff and increase our cost?

CHAIRMAN REITELL: Didn't you have that answered in the question about exports and tariffs?

MR. GEORGE D. GASKIN: Yes.

MR. SAWYER: What will be the effect upon this Act of the present tariff discussion regarding reducing the tariff, whereby we increase our cost? We spoil our own sales possibilities because our costs will be so high it won't work.

MR. KRUEGER: I can answer that. I think the new law gives the administration the power to license importers and in that way control their prices. They have not gone into this thing with the idea of throwing the domestic market open to our foreign competitors. I think they have adopted the good Republican principle of the protective tariff.

MORRIS KNAPP (*Fairbanks Co., Binghamton, N. Y.*): I should like to ask the Chairman of the meeting to express some of his opinions. In the first place, how we will begin in our individual business to work up our data and work it in with the trade association and into the whole plan.

CHAIRMAN REITELL: I think there are many people interested in this subject. My experience has been quite limited to the matter of soft coal. Really, I think I would sooner let the rest talk. Not that I do not want to answer the question. I feel this is your meeting. I am to run the works.

MR. OLIVER: I should like to inject into the discussion a thought that has not been brought up before, as to what effect this control will have over clerical labor, office help.

CHAIRMAN REITELL: Expound your ideas. It may force us into a labor organization. Maybe I can start a cost accountants' union. I will be your agitator at a good price.

J. FRANK CRAIG (*Remington Arms Inc., Bridgeport, Conn.*): My thought along those lines is that when the various industries get together in order to establish reasonable costs when the margin of profit is determined, I am afraid the high-priced executives are going to be brought down; the margin of profit will be the same for all of them because if the smaller concern pays lower executive salaries, and the average price is somewhat consistent with what they pay, I am afraid the high-priced executives are going to be cut in order to bring them down to it.

EMORY A. AUSTIN (*Hammermill Paper Co., Erie, Pa.*): Referring to the question raised by the other gentleman, the first thing to do would be to get hold of the Act and get busy.

I think Charlie mentioned that the next logical thing to do is to see our trade associations taking the proper steps from the cost standpoint. It may be that we have a well-organized association with a well-qualified secretary. It may be that we are not in that favorable position. I think it is incumbent upon us to get busy on that very point right at the start.

L. I. HOUGHTON (*C. P. A., Springfield, Mass.*): I spent yesterday afternoon as a trade association executive, also as a cost accountant, discussing this Act and listening to what someone had to say who seemed to know about it for the paper industry. What was said indicated an answer to a question that has been asked about which associations would ask for codes. There are, I understand, between 18,000 and 20,000 in the United States. Most of these associations are small, local associations. The number of national associations runs somewhere around 1,800 to 2,000. The administration does not want to deal with all these 2,000 associations direct. They want them to get together.

In the paper industry, the plan is that the administration will deal with the American Paper and Pulp Association. That Association will be an association of 40 or 50 subordinate associations. The American Paper and Pulp Association, for instance, will have no individual members. Their membership will consist only of these other paper associations. Among those other paper associations will be manufacturing associations and also converters.

For example, the association which buys all the paper and converts it will be in the group. That association also has in it a distributors' division, which will probably answer the question of how far down it will go. It will take manufacturers, converters and distributors and

the whole thing in the American Paper and Pulp Association will go to the administration.

Another point regarding hours—I understand the Cotton Textile Institute went to the President because he specifically mentioned them when he made his address or message to Congress regarding this Act. They composed a code and in that code they mentioned, I believe, 36 hours. They wanted to get their code in first, or, at least, have a tentative code or act at once. President Roosevelt, or his representative, looked over the code and said, "It is fine, but 36 hours is not good enough. You will have to do better."

The probability is that the administration will insist on 30 hours or less. We must remember that back of all this is this big thing: There are 15,000,000 people out of work in this country. The administration wants to get people to work. If there is work enough to go around for six hours a day, that is what they want. If there is work enough for eight hours, that is what they want. If there is work enough for only four hours, that is what they want. They are after employment.

The cost accountant must keep that in mind and must plan to adjust his work in the cost accounting to perhaps provide for four six-hour shifts per day or five days of six hours each, or something like that. Employment has to be increased. The cost accountant has to plan his work for that increase.

G. W. SEYBOLD (*Eureka Mower Co., Utica, N. Y.*): I should like to enlarge on the question in regard to exports, where we have a concern with a rather large proportion of its output in exports and under the plan now its cost will be greatly increased possibly by the added labor, as well as the raw materials which will be finished products for someone else. Until the export field is brought up by natural processes or otherwise, just how that matter of price can be equalized on this side, we do not know.

If you have in an association some concerns which are manufacturing largely for domestic trade, and some others whose output might be three-quarters for export trade, I was wondering where they would get off under these fixed prices and costs.

CHAIRMAN REITELL: I do not see how they would get off unless there would be a pooling with those more domestic sellers.

MR. GASKIN: You have European competition there.

CHAIRMAN REITELL: You have competition now with countries not under this Act. It seems to me the only way to save it would be to have the domestic market man pool his surplus earnings with the fellow who is meeting the serious export competition.

MR. SEYBOLD: Do you mean the earnings or production?

CHAIRMAN REITELL: Production.

MR. SEYBOLD: The trouble is, a good deal of this export stuff is special. It is in some industries. That is why it is handled by a different individual. It is just something more to think about.

MR. GASKIN: When I asked the question of Colonel Gaskill, I had that particular phase of the matter in mind. It might be possible that we will have to get rid of our surplus possibly at a loss if we are to compete in foreign markets with European goods.

CHAIRMAN REITELL: I am not certain that the time may not arrive, and very quickly, where the industry of which you are a member, a large exporter as contrasted with others who have more or less a domestic trade, will have to absorb some of the losses that you as an exporter are suffering. I feel that probably would be the way out.

CHARLES W. TUCKER (*H. P. Hood & Sons, Charlestown, Mass.*): It is quite apparent that the effective administration of this Act involves a very extensive auditing program. It seems to me, therefore, that it is highly important and incumbent upon all business men to see to it that only accountants and auditors very much skilled in their profession, and men of very high integrity are permitted to engage in this work. I should like to leave that as an objective, as something toward which our Association should bend every effort.

CHAIRMAN REITELL: I think that is very wise. I feel it is too late to go on with the other questions we had set up for our round-table discussion this afternoon, but inasmuch as we have opened up now a place in our publication for the discussion of points, I shall suggest to the National Board that these different points be submitted and that possibly we can have some good reading material through the winter.

You will recall what Colonel Gaskill said in his speech today, that it is very important indeed that we have uniformity within our group, in our cost association. That is one of the necessary things for the functioning of this new Act. At one of our coming National Board meetings, I hope this whole matter of working out standard classification and nomenclature will be taken up.

I feel this session has been one of the finest I have ever attended. I know we have had over 700 people here, and the reason we had 700, and no other reason under the sun, was because industry is faced with a new situation, a new era, in which we, as cost accountants, must of necessity play an important part. I want to thank you from the bottom of my heart for coming out and making this meeting such a fine success.

I am sure the National Board will take cognizance of the fact that we want this paper of the Colonel's and the questions and answers published, and published quickly, because I do not think we want to wait until September for the Year Book to get such valuable information.

Thank you very much.

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SESSION V

**BUDGETARY CONTROL FOR THE
SMALL BUSINESS**

THURSDAY MORNING, JUNE 15, 1933

HARRY E. HOWELL, Auditor, Grinnell Company, Inc., Providence,
Rhode Island, *Chairman*

W. MASON SMITH obtained the degrees of B.S. Comm. and M.B.A. from Northwestern University, Evanston, Illinois. He is also a Certified Public Accountant of Illinois. Following several years of teaching experience, he became Assistant Secretary of the National Association of Cost Accountants in March, 1929. In September, 1931, he accepted his present position as Assistant Professor of Accounting at Northwestern University and, since January 1, 1932, has been associated with James O. McKinsey & Company, Accountants and Engineers. Since going to Chicago he has been active in the affairs of the local chapter of the N. A. C. A., serving as Director of Membership and Director of Programs.

HARRY E. HOWELL received his education both here and in England. He has had costing experience in ice making, wholesale lumber, brass, malleable and grey iron foundries and machine shops, and contracting for installation of sprinkler and piping equipment. Since 1920 Mr. Howell has been with the Grinnell Company, Inc., of which he is now the Auditor. He joined the N. A. C. A. in 1924 and has been active in the work of the Providence Chapter for a great many years. In 1927-28 he was Vice President of the Chapter, and he served as President for the years 1928-29, 1929-30, 1930-31. He was elected to a three-year term on the National Board in 1931, and during 1932-33 has held the position of Director in charge of Standardization. Mr. Howell is a member of the Ohio State Society of Certified Public Accountants. He engages in public accounting under the firm name of Howell & Rison.

BUDGETARY CONTROL FOR THE SMALL BUSINESS

PRESIDENT BULLIS: Yesterday we heard from Colonel Gaskill that budgets are going to be necessary in the future because of the work the government is doing now with industry. We all know that the budget is new to some small business enterprises, but someone has said a thing is new only in that it is new to us. I think that every business, large or small, should use a well-rounded budget as a practical management tool. This morning we are to learn about the use of the budget in a small business.

I take great pleasure in handing the Chair and the gavel over to the Chairman of today, Harry E. Howell, the Auditor of Grinnell Company, Inc., of Providence, Rhode Island, a Certified Public Accountant and National Director of the N. A. C. A. Mr. Howell.

CHAIRMAN HOWELL: Mr. President and Fellow Members of the N. A. C. A., and Guests: After the session yesterday covering those very broad national problems, you may feel that we are going to get down to some very minute details today. However, it is the handling of the details that is going to show in our final results, if we are going to do the job properly.

The subject of budgeting has been discussed many times. I was amazed at the N. A. C. A. bibliography that there was on budgeting, and wondered why either Mason Smith or I had the temerity to attempt to add something to it. At least, we can repeat what has already been said, because some of it probably has not entirely registered.

It seems that we are now entering into an era of financial planning when the budget, as I think Colonel Gaskill said, will be the beginning, and not the end. We have used it as a kind of check when we were all through. We look at it and say we did pretty well in accordance with the budget, or pretty poorly.

This afternoon we will have an even more detailed application of this subject in that we will discuss the standards used, those standards being very necessary, I think, in the larger enterprises to properly operate the budget.

The first speaker this morning I really do not have to introduce. You all know Mason Smith. He was associated with Dr. McLeod at

headquarters for a number of years. So that we may get his official pedigree, I will read it because I could not remember it all.

He has the degrees of B.S. Comm. and M.B.A. from Northwestern University, Evanston, Illinois. He is a Certified Public Accountant in the State of Illinois. After several years' teaching experience he became Assistant Secretary of the N. A. C. A. in March, 1929. In September, 1931, he accepted a position as Assistant Professor of Accounting at Northwestern University. He has also been associated with James O. McKinsey & Company, Accountants and Engineers since 1932.

With a gentleman as well qualified as that I need make no further introduction. I will turn the meeting over to W. Mason Smith.

PRESENTATION OF THE FACTORS OF BUDGETARY CONTROL FOR SMALL COMPANIES

W. MASON SMITH

Assistant Professor of Accounting

Northwestern University School of Commerce, Evanston, Illinois

I THINK Harry Howell is right when he states it is pretty difficult to say anything new on the subject of budgeting. I think, however, that the problems of small industries are unfamiliar to most of us, no matter what particular phase we want to discuss.

If my memory serves me correctly, it was not until the summer of 1931 that any organized, concerted effort was made to deal with these problems. During that summer the National Industrial Conference Board held a conference for the smaller industries at Silver Bay, New York. I believe they repeated that conference at least once.

Your program committee has felt it desirable to focus our attention as an organization upon the problems of the smaller businesses, particularly with reference to budgetary control. In order that we may all be thinking somewhat along the same line I shall try to present the fundamentals of budgeting as they apply to small companies. I shall also try to show how such companies can get started on a program of budgeting in any one of several ways which may lead to a complete program.

What Is a Small Company?

Before we attempt to treat of the problems of small companies it might be well to get clearly in mind the kind of organization such a

company has. Anyone at all familiar with the literature of accounting knows with what painful intent all manner of strict definition is avoided. Argument without decision on fundamental matters is nowhere more common.

I have tried to formulate in my own mind what we are thinking about when we use the term "small company." While a strict definition need not be accepted by all of us we should be able to reach some agreement on the characteristics of such companies. Since "small" is a relative term at best there are a number of bases available to measure such relativity—number of employees, sales dollars, sales units, breadth of market geographically, number of plants and/or branches, and others. None of these seems satisfactory for our purpose. Since we are talking about a management problem, I believe a fair point of differentiation might be this: Small companies are those the complexity of whose organization and scope of whose activity are such that management specialization cannot be fully developed.

Some important characteristics of such a company are the following:

- (1) Internal management problems are handled with a lesser degree of specialization.
- (2) Technical research facilities are usually less completely developed.
- (3) The market for the product is less subject to control.
- (4) Often a considerable volume of sales are in special orders which the large company cannot handle economically.
- (5) Management may be more flexible even to a point of seeming vacillation.
- (6) Methods and procedures can be less formal without lessening their effectiveness.

We may think of our small company, therefore, as organized somewhat as follows. The president is also the general manager and, in addition, is actively in charge of one of the main divisions of the business, such as sales, purchasing or production. There are functional executives in charge of those divisions not administered by the president. The accounting and control activities will be done in a routine way without the imagination and breadth of vision that should be found in the controller's office of a larger company. The president will know a great deal about the details of the business in all its aspects and will have less need for elaboration and analysis by the men within his company. In short, he will run at least one ring of the circus and will pretty largely dictate how the other rings are to be operated. He will recognize the fundamentals of organization within

his company but will realize the necessity for supplementary work by outside counsel on many special matters.

How May the Budget Be Started?

It is usually hopeless in any company to attempt the introduction of a budget all at once. Theoretically, certain preliminary work should be done to find out many facts about the business and its problems before introducing the budget. Practically, if we wait for such things the start is long delayed. Nearly every successful budget plan has found its beginnings in something less than a complete program.

Since distribution problems are important to both large and small companies, it is common to find the budget introduced through the sales division. Our small company executive may be the sales manager of his company and see the desirability of developing a better control over his sales and selling costs. He determines, therefore, to study his distribution problems for the purpose of establishing a sales budget. His first attempt may be crude but he has at least started. Specifically, he should find out from his own knowledge and his records (1) what he has been selling, (2) to whom he has made his sales, (3) what channels of distribution he has used to reach his customers, (4) at what price or prices he has sold his products, (5) what methods of sales promotion he had used, and many other factors. Careful study would show him what his past sales activity had accomplished and would give him a start in his judgment of future sales policies.

With such a study of the past in hand, our small company executive looks to the future. He calls in his accountant and by dint of much pain they find out that a shift here, more emphasis there, and pressure some other place would give them a more desirable sales volume. The accountant has read a book on statistics and understands how to study two curves in their relation to one another. He therefore gets the Annalist index of business conditions and superimposes the curve of past sales of his own business on it and notes the relationships that appear to recur. The executive would study trade data, government reports, general magazines, etc., to gain as good a grasp as possible of the business outlook. Having thus informed himself he must rely on his own judgment to make the final forecast. This will then be his sales goal for the ensuing period. Perhaps the budget would never permeate into the other divisions of the business but it would be surprising if it did not.

A second approach that might yield results would be through a trade association of which our small company is a member. Through an

exchange of information and group meetings the executives of this and other companies might formulate the outlook for the trade. This would supplement and help the single company president in his judgment about his own company.

A third approach could be made on a "break-even" basis. Our small company accountant is a member of the N. A. C. A. and has studied the 1931 Year Book. When Ed La Rose talked before his chapter he was struck with the idea of Ed's "rainbow" chart. He shows it to his boss and they decide that such a thing might look pretty for their business, too. Accordingly, the figures are gathered from the books and past statements and much colored ink is spread to show that the desired volume of this business to make a reasonable profit is some 30% above the average for the past three years. This makes the boss sit up and take notice. He sees two possibilities of improving his chart—more sales or less expense. Since labor cost is 60% of total cost he cuts all salaries 10%, including the accountant's, and then proceeds to stimulate the sales end of the business. Internal study is made to see what can be saved inside the plant and the budget idea has started to work.

Fourth, a budget may start in an obscure way in an attempt at an expense budget in a single department. It usually is easier to comprehend the relationship between volume and cost in some departments than others and it is in such departments that a start of this kind would be made. Seeing the benefits of expense control in a single case might stimulate the executive to application of similar measures in other divisions.

Fifth, many small companies exhibit such a wide variety of products that a budget may be thought impossible. Often a large percentage of these products are made to customers' order. Sales forecasting may seem hopeless in such a situation and it may be reasoned that without a sales forecast in units the budget is an impossibility. A competent small company executive will not believe such a statement. He will seek relationship between sales in dollars and, for example, dollars of direct labor cost in his various departments. He will then study relationships between direct-labor dollars and indirect-cost dollars. One company in Chicago, 60% of whose business is special order, finds it possible to exercise excellent control over its departmental costs within the factory. If emphasis is shifted from the unit of product as a cost base to a unit of activity of functional productive divisions within the plant, satisfactory control over expenses of such divisions can be secured at any one of several levels of activity. Such a budget may not

be complete but it will go far to give a small company the internal benefits of budgetary control.

Sixth, the working capital condition of our small company may be unsatisfactory. The boss may have been annoyed and embarrassed in the past because of unforeseen demands on his cash. His common sense tells him that it should be possible to plan for his cash needs. His accountant says that would be easy if everybody around the place would cooperate.

For example, if the sales manager will figure out how many dollars worth of receivables will come out of his sales, and when the money will be realized from them, the biggest income-forecasting job will be over. If the production manager and sales manager can get together to plan out what they need to make, to sell what they think can be sold, it will then be possible to translate all this into cash outgo. It is easy to see how such a problem and its solution would show everybody the benefit of a complete budget. This approach has been used quite successfully in several cases.

None of the foregoing examples are meant to give an ideal approach to the introduction of budgeting; they merely suggest places to start. As each is developed into a complete program the fundamentals of budgeting must be observed.

Development and Application of Fundamentals

The first requisite to a successful development of the budget program is research in order that proper policies may be established and proper standards set. All of you are familiar with the excellent research work in the distribution field carried on by Mr. Hedges at Bausch and Lomb. Mr. McNiece has explored new fields in distribution at Union Carbide. Methods and standards departments are a commonplace in scores of large companies. Research in connection with product development is all about us. The small company, however, must get along without as complete a development of a formal program of research as these items suggest. It must rely on outside technicians and counsel to direct and execute its formal research program.

Research, however, is not necessarily a matter of specific organization. It is more truly a state of mind. Any small company can develop such research so there will be a constant inquisitiveness of operating personnel. In one company during the past year the whole problem of idle machines due to obsolescence was solved because of such a state of mind on the part of a sub-foreman in the plant. It is a healthy condition in any business if research-mindedness can become

a habit. It is probably easier to develop such a habit in a small company because of the intimate relationship between the company and the employees. If management is successful in bringing out this research-mindedness there need be little fear of the facts available to the small company executive in shaping his policies and setting his standards. They will be sound and abreast of the times.

The policies established on the basis of research constitute the second requirement of successful budgeting. In a large company, policies are born in meetings of boards and committees. Reports, figures, graphs, charts and other paraphernalia appear from specialized departments until common sense may be a little hard to exercise. In a small company one man will probably establish the policies of the firm. If he is alert and open-minded and has the grasp of the details of his business that he can have, there is no reason why his batting average in policy formation cannot be at least as high as his large company competitor's. He can match the personnel of such a company on every count except formality and perhaps that isn't so necessary after all.

A third requirement of successful budgeting is sound organization. Probably no subject in business literature has been the subject of so much pseudo-scientific discussion. It is not my purpose to add to such an overburdened situation. I have observed that it is very difficult to think about organization impersonally in a small company. Common sense, sympathy, vision, understanding, and courage characterize successful operation through a good organization. Are there any of these things that the small company cannot apply to its problems? Such a company may lose in its ability to develop specialists but it should more than compensate its loss in broader development of its operating personnel.

A fourth requirement of budgeting is that the budget be constructed along organization lines and that those responsible for its execution have a prime hand in its construction. It is probably easier to construct a budget in this manner in a small company. There is chance for greater cooperation and coordination, a greater frankness and openness in discussion of problems. All members of the organization can be made to see the benefits of the budget program. Personal conference can be made the substitute for written instructions.

A fifth requirement of budgeting is that the budget shall be rigid enough to establish control, yet flexible enough to meet changing conditions. Since the budget is but a statement of policy by units of organization expressed in terms of future accounts, it is necessary that

changes in policy be promptly reflected in a revised budget. Since small companies can operate under policies that change more frequently and can turn sharp economic corners without tipping over, it is particularly important that budgets should be watched constantly. If a budget can be made to fit these changing policies so that flexible rigidity of control can be accomplished, I believe the small company can enjoy a permanent advantage over large companies in many lines.

A sixth requirement of budgeting lies in the field of accounting. The accounts must be made to reflect organization responsibilities and results, and actual data coming through the accounts must be strictly comparable with the budget. The small company probably has a simpler accounting set-up since only the bare essentials are thought necessary. Perhaps such a set-up cannot give the required analytical material and must be revamped. There will probably be more reliance on hand-kept records, more oral reporting of results, less formality in reports and less analytical data possible. Instead of having sales analysis made on special machines there will probably be less continuous analysis. Intermittent studies of the sales picture will be carried on as needed. The small company's volume will not support elaborate procedures.

We have all heard a lot about reports. We have been shouted at about getting reports out while the figures are still hot. We have been graphed and charted and curved and diagrammed until we are color blind. The seventh fundamental of budgeting, the preparation, presentation, and action upon comparative reports, becomes decidedly more fundamental in a small company. There will be less formality in reports, they will be issued oftener and in less volume, they will tell a current story and not give detail about something that the executive knows already. Each executive is on top of the details of his division and the boss knows a lot about every division.

As reports are issued they will be studied and made the basis of executive action. They will serve the purpose of supplementing existing knowledge already at hand. Direct, hand-to-hand treatment of the problems indicated by the reports will be a day-to-day occurrence.

Summary and Conclusion

The foregoing material indicates that there is no mystery about budgeting that precludes its use by a small company. The fundamentals of budgeting must be observed no matter what the size of the organization. In many respects the small company with its flexible situation stands in a preferred position in American industry today.

To capitalize on that position and make the most of these advantages requires the same sound management fundamentals as are observed in successful large companies. Those small companies that find permanent success will solve the problem of applying effective control in a practical manner. Those who fail to make such application will be either lucky or failures.

CHAIRMAN HOWELL: Gentlemen, the meeting is open for questions and discussion.

MR. CASTENHOLZ: Mr. Smith, I was wondering what you thought of starting a budgeting procedure or system through stipulating a normal net profit return on a normal investment. In other words, I ask that question because after all, whether a business be small or large, net profit is the goal of all business. It seems to me all of our operations in business must be predicated upon this desire to obtain a certain net return on our investment.

I have personally successfully started a number of budgetary control systems on that basis and it is an appealing basis from the standpoint of the executive because that is his major interest.

MR. SMITH: I think such a basis works pretty well if all your competitors do not try to do the same thing at the same time. In other words, as industry is organized at present, success usually depends upon beating your competitors in applying any improvement. For example, if an industry has 50 companies and only one of those companies is alert enough to think about budgets, I think it can safely start a budget on the basis of a profit goal. But if a substantial part of the other 49 commence to shoot at their needed profit goals, someone will get hurt. The old economic concept of balance between the existing supply and the demand to take it off the market will operate as it did before the first company started a budget.

It seems to me if you start a budget that way, you should never lose sight of the fact that if you miss that mark, you should not throw up the sponge and quit. Let us still say we missed it, that we are going to lose a little money, but we have a level that is a little bit below the level we contemplated, and we are going to apply the control mechanisms on that level just the same.

There are in one industry that I think of two large competitors. They are comfortably ahead of their other competitors. Both are using budgets. In my opinion, if those two companies should start their budgets entirely from a desired profit angle, they would be bound

to run into each other and one of them would have to give ground. The one that does has to be alert to adjust its budget to changing conditions.

While any idea to get the budget sold is probably justified, fundamentally you are interested in developing such a satisfactory control of the operations of any company that it will reap the largest degree of profit possible, no matter whether the desired profit is secured or not.

CHAIRMAN HOWELL: These papers run practically jointly, so if you have any questions when we get through we will answer them jointly, if we can.

THE ACCOUNTING MECHANICS OF BUDGETARY CONTROL FOR SMALL COMPANIES

HARRY E. HOWELL

Auditor

Grinnell Company, Inc., Providence, Rhode Island

THE idea back of this particular paper, which does not contain much that is new, is to set forth a formal approach and a definite technique for budgeting for the assistance of those great many cost accountants who have been suddenly assigned to budgeting work. In most cases they have had very little preparation. Probably when they first suggested budgeting, they had a very unsatisfactory hearing from the boss, and they forgot all about it, and then during the exigencies through which we have been passing, the boss, hearing of budgets, has dashed out and said, "Why don't you make up a budget?"

The cost accountant instead of telling him it takes considerable time, has tried to do it with the result that some of it has not been very sound or very scientific.

It may appear at first that Mr. Smith and I are engaged in a debate here because some of the things I am going to say do not exactly coincide with some of the things he has said. I think the difference is this: Mason is talking about starting it cold, the first time you have the idea. I am talking about it after you have had the idea, after you have saturated yourself with budget information and you are ready to really do something.

I was interested in the question of Mr. Castenholz regarding budgeting to a net profit because I think that sort of budget has been most vital in the last couple of years, and probably will continue to be vital for some years to come.

Those of us who are engaged at all in credit work know that in a good many lines of industries more than 50% of the concerns today are practically, technically anyway, insolvent, so that budgeting for control of finances has been most important and most vital. What they have wanted has been a budget which will show what the cash position is going to be, and what they probably will have to borrow. That is what the boss usually asks for. That is what he is going to the cost accountant to get.

While it sounds very simple, you can see before you get that answer you have really to prepare a complete budget from top to bottom. That is why preparation is so necessary and why it is much better to say, "Well, I am sorry I cannot make a budget. You will have to give me a year (or some other time) to get it ready," rather than to jump in and bring discredit to yourself and to the whole subject of budgeting.

It is very easy for you to practice budgeting. You can take your last year's figures or those of the year before or any other time, and start off with a basic set of facts. Say that last year or the year before our sales were a quarter of a million dollars. I am going to guess that our sales would have been a quarter of a million dollars and work back. You will be surprised at the intricacies and details that you will find in that way that you otherwise would have forgotten. You will develop a facility in handling budgets that is very necessary. I cannot emphasize too much the fact that to dash into budgeting in cold blood is a very dangerous procedure.

Adequate procedure and preparation, I think, would be to saturate yourself with budget literature, and even though that may be very elemental, it is fundamental. It is necessary to get that background into the back of your head and back into the experience and judgment cells so that it is available when you need it.

I was surprised, for instance, to see in the Complete Topical Index of the N. A. C. A. that there are 52 papers on budgeting. Suppose you take those 52 and start at number one and work through. I think you will have a very fine preparation for budgeting; much better than if you just read a magazine article today and dash into it.

Even aside from the N. A. C. A. publications, there are some very excellent works and some of us probably should blame ourselves for not having used this information before. I have here a pamphlet that is called "Budgetary Control System," put out by the Accounting Committee of the Rubber Association of America, which was printed in 1926 by the Ronald Press, and is just about as complete a manual from which to work as you can ask for. That has been available for seven years.

In all of this budgeting, in the articles and speeches I have heard, there is great emphasis placed on starting at some little place and doing some little bit of a job. The result is that it is too liable to stay a patchwork job, too liable to stay a lot of pieces. It seems to me to go fundamentally against the competent accountant's grain to do things in such a slipshod, loose, and piecemeal way. If there is anything that makes an accountant an accountant and not, well, several kinds of a bookkeeper, it is the fact that he does appreciate accounting technique. He has a certain formality in doing his work. I do not say he should advertise that to everybody in the place, but in doing it himself, he should follow a certain technique.

It is with this idea that this paper has been prepared. While the preliminary steps in budgeting do involve making up expense and production budgets and miscellaneous budgets, you cannot say you have a budget system until you have a completely coordinated unit that enables you to effect financial control. That means you have to have a balance sheet at the beginning of the period, cash receipts and disbursements statement, profit and loss statement, and balance sheet at the end estimated.

Of course, before you can do that it is necessary to have the prerequisites to sound budgeting. They are very simple. You need them for sound management. The first is proper organization and definite lines of authority and responsibility. I think, not in the very smallest organization that Mr. Smith was talking about, but in the next largest where it is too big for one man so that you have three or four, that that is where the greatest confusion comes. As was pointed out in the 1932 Year Book of our Association, in Mr. Hopf's paper, you get a condition where any one of three men is doing something about everything. That makes it very difficult for you to budget.

The second thing you need is an accounting system which reflects the operation and results of such an organization. That also seems simple. When you start to budget in detail one of the first things you find, if you haven't got a very carefully planned chart of accounts, a functional chart of accounts, is that you have to tear your figures to pieces in many different ways so that you cannot get your budget controls from your general books, which makes continual analysis a very expensive procedure.

Another point to remember is, that where you have branches or plants around the country you must have uniformity of accounting. You cannot have Milwaukee charging something to one account and Chicago charging it to some other account. All of that work has to

be done ahead of time, and it is the failure to do so that has made some of this inpromptu budgeting the failure that it has been.

It is also really necessary to have a cost system which accurately reflects the cost at varying capacities, and the components of this cost.

You also need the adequate support of the management in the budget work, and, although probably you all will not agree on this, you need an individual to operate the budget who is able to use it as a coordinator of the work of all departments, and as a means of educating each manager, that is, each manager of the little units (it may only be a foreman of a department) in the economics of his own particular unit of business.

I think I see, as one of the great things in budget work, its educational value. Men operate in small units of a big industry for years and really do not understand their relationship to the whole or understand even the economics of their own little department. There is a wonderful opportunity for the budget director to get them all profit and company minded.

In the preparation of the complete budget, the sales budget is really the keystone. In the accompanying charts you have been given a complete set of budget papers based on using the sales budget to start off with. I won't complicate it by departing from that and working from some other base.

It seems to me the vital importance of the sales budget is the fact that the customer's dollar in the final analysis dictates all the policies and all your activities and operations, unless you happen to be an endowed institution. So it really is a very vital part of the system. Not only is the sales budget the basis for the profit and loss statements and balance sheets, but its preparation constitutes a reappraisal of all sources of profit, and in doing this you open up a very large field of research.

Almost invariably this work leads to an educational program for your field managers. They begin to put down their thoughts logically. They depend a little less on hunch and instinct. It usually leads you, whether you are a one-man concern or a big corporation, into market research and sales analysis. It leads into work that in the distribution and selling fields discloses and stops uneconomic practices, and reveals the same faults that Taylor and the pioneers in industrial cost accounting discovered when they first began to scientifically manage factories.

While the preparation of the budget may be the result of the labor of many, the final collating and establishing of the budget is a one-man job. I feel that if every Tom, Dick, and Harry in the plant is going to feel that he is responsible for the budget, can change it and argue about

it, there is going to be the tremendous disorganization that comes from any large committee rule. If the budget is to be a basic structure, around which the financial condition of the company is to be built, it has to be in pretty strong hands.

These budgets cannot be prepared from cold statistics. Even though our cost accountant has read a book on statistics, I am afraid that just one book is liable to get him into very considerable trouble, particularly if he tries to plot his sales against general business index lines. Some of these indices are treacherous to the nth degree.

The building of an index to match your business is a very difficult job, but that is a development that does not have to come early in the budget game. There is certain knowledge that is essential. Mr. Smith has told you about the small concerns that need to establish policies or at least formulate policies that they do not realize are policies. How about the places that have their policies already established, that are going? Somebody has to know all those things. In the large organization it becomes scattered, so I think, in addition to sound statistical background, certain basic information is needed.

You need to know the general plans and policies of the business. You need to know something about trade conditions. Then you need some statistical information on previous sales, what you sold, where you sold it, how you sold it, and to whom you sold it.

The first item, a knowledge of general plans and policies of the business, is usually lacking in budgets prepared entirely by the salesmen.

The second item, a knowledge of trade and conditions, particularly as they may exist in the near future, is a problem of great difficulty for the managing executive to estimate and anything but a superficial appraisal of immediate local conditions is beyond the ken of the average salesman.

The third item requires statistical study to bring out the trends, the underlying and less obvious currents, the natural channels in which the business flows the most easily.

In most cases sales have to be analyzed by commodities, methods of sale, terms of sale, methods of delivery, by territories, by salesmen, by customers, and by such other special classifications as a particular business may require. In the search for basic data this information is cross-collated and set up in many different arrangements.

Further analysis is sometimes required so that forecasts can be made for those materials where with reasonable accuracy the requirements can be determined by units of size or price as distinguished from that group of materials which can only be estimated in bulk.

The sales budgets used in this study have therefore been prepared, using the following source material:

- (a) An adequate statistical background showing sales volume, sales cost and profit by department, by products, by salesmen, by customer group, and by trading centers, with sundry cross correlations.
- (b) The report of potential business prepared by the market research section.
- (c) The report of business necessary to sustain the existing expense and the comparison of existing expense with normal cost of doing business.
- (d) The study of the weighted index line forecasting the trend.
- (e) The study of seasonal variation.
- (f) A study of the relative acceleration or deceleration trend which, in effect, eliminates seasonal variations.
- (g) A study of the statistics of satisfactory districts used as a measuring stick against the statistics of unsatisfactory districts.
- (h) Field budgets, prepared by the local manager, of sales by products and by major customer groups.

While field budgets should be called for, it is too much to expect them to come in in shape for final use; in fact, it is sometimes not desirable to insist upon field budgets when dealing with men who have sufficient business sagacity to competently plan their operations but who are disturbed by the setting down of their ideas in a formal accounting manner. If you try to get them to set it down on paper, you just spoil their style completely. So the best thing to do is to go out and talk to the men and make up your own budget. I feel the value of the field budget chiefly lies not in its immediate use in making up the budget, but in the check-up which comes when the actual results are apparent. That can be done, let us say, six months later in a very friendly and not critical way, in which you can go out to the field manager and say, "Bill, you certainly were off. You threw my budget out to beat the band."

Then sit down with him and see if you can find out why he did not make a better analysis. You may find that certain very important factors he had completely ignored. If that can be presented to him in the right way, and if you teach him one or two factors at a time that he understands, eventually you are going to get that man not only better for budget work, which is not so very important, but better for his job.

One other study made in connection with setting the final sales budget is a volume-price chart. This requires a very intimate knowl-

edge of competitive conditions and customer resistance and the possible effect of encroachment on competitors' territory on the price structure and resulting net profit.

You can budget increases in sales, but you have to bear in mind that maybe a competitor will take offensive measures which will wipe out more profits than you will gain. The volume-price study is effective in correcting the profitless expansion which arises when the sales quotas, as they used to be, are set 10% higher than they were last year. I do not know just what is going to happen to sales estimates under the National Industrial Recovery Act.

It may be that this very difficult subject will be settled for us, that we will receive a letter from somebody which will say, "Your quota is so much," and if so, that takes one of the tough jobs out of budgeting because you can start with a known figure. However, I am not a great believer in blessings by mandate, and it is just possible that we may still have a few odds and ends of constructive thinking to do without getting the government to do it.

I think there will still be need for study. Suppose we even have fairly uniform prices and fairly uniform quotas. There is one thing we have not got and cannot get by legislation, and that is uniform intelligence and uniform initiative. It seems to me that if they set my price and quota for me, there are still a few ways I can entice an additional customer into my field.

I think new competition may involve a little extra in quality, or a little additional accessory at no extra cost, that will make the customer buy my product, or perhaps I may package the stuff a lot better, so it will deliver easier or display better. Or, I may group the product and sell it in combinations until they pass a law against that. I may have a much more effective advertising campaign, or, if I am working through dealers, I may develop a very much better plan of dealer helps.

It will be, I think, a mistake for us to assume that there is not going to be extensive competition, but I do think that for a while, at least, we may have a much better idea of what our sales are going to be and that will certainly make budgeting much easier. At the same time, it will make budgeting that much more important, because, instead of budgeting for sales, you will have to budget for profits.

It will be your job to budget to see that with a definitely assigned quota at a reasonably established price you make the maximum amount of profit. The only way you can make the maximum amount of profit is to control your expenses and control your costs and the most effective way of doing that is through the budget. So, though one element of

uncertainty might be removed, it does not eliminate the need of careful budgeting.

Another phase that I am not going to touch on at all, except to mention in passing, is that it seems to me there will be a tremendous field for budgeting an entire industry and of budgeting your part in that industry. I cannot see how all these small units are going to be tied in unless there is some master control which will be a form of budgeting.

To go on, there are a lot of figures in this paper, and I really do not intend to get into all of them. I should just like to call off a list of the schedules and then, if you have any questions about them, we will try to answer them.

Preparation of the Master Budget

Schedules and working papers, together with the following explanatory detail, are designed to illustrate the principles involved in the preparation of the master budget. The following schedules are required (see illustrations) :

Schedule No. :

- (1) Sales budget by territories by product
- (2) Sales budget by territories by customer group
- (3) Statement of standard cost of sales
 - (a) Inventory balances and distribution of cost variance
- (4) Statement of inventory and required production and purchase commitments
- (5) Statement of standard cost of production, and cost variances
- (6) Detailed expense budgets :
 - (a) Sales expense by territories
 - (b) Manufacturing expense
 - (c) Advertising expense
 - (d) Administrative expense
 - (e) Fixed operating expenses
 - (f) Sample expense ledger sheet used for control of actual and budgeted expenses
- (7) Schedule of anticipated collections from sales
- (8) Schedule of anticipated expenditures for :
 - (a) Labor
 - (b) Material for manufacture and for resale
 - (c) Supplies, telephone and sundries

HOWELL-KEENE COMPANY

Sources of data:

Prepared by: F. L. HARVEY
Checked by: H. E. HOWELL

Schedule I

BUDGET OF ANTICIPATED SALES FOR FIRST HALF 1933

BY TERRITORY--BY PRODUCT

	Product	January Estimate	Actual	February Estimate	Actual	March Estimate	Actual	April Estimate	Actual	May Estimate	Actual	June Estimate	Actual	Total First 6 Months Estimate	Actual
EASTERN TERRITORY		\$		\$		\$		\$		\$		\$		\$	
	A	700		616		684		640		676		684		4,000	
	B	1,750		1,540		1,710		1,600		1,690		1,710		10,000	
	C	175		154		171		160		169		171		1,000	
	D	700		616		684		640		676		684		4,000	
	E	7,000		6,160		6,840		6,400		6,760		6,840		40,000	
	F	350		308		342		320		338		342		2,000	
	G	350		308		342		320		338		342		2,000	
	H	350		308		342		320		338		342		2,000	
	J	525		462		513		480		507		513		3,000	
	K	875		770		855		800		845		855		5,000	
	Total Sales	12,775		11,242		12,483		11,680		12,337		12,483		73,000	
	%	17.5		15.4		17.1		16.0		16.0		17.1		106%	
SOUTHERN TERRITORY															
	A	4,375		3,850		4,275		4,000		4,225		4,275		25,000	
	B	5,250		4,620		5,130		4,800		5,070		5,130		30,000	
	C	210		185		205		192		203		205		1,200	
	D	525		462		513		480		507		513		3,000	
	E	5,600		4,928		5,472		5,120		5,408		5,472		32,000	

BUDGETARY CONTROL

Schedule I Section b (Cont'd)	F	175	154	171	160	169	171	1,000
	G	525	462	513	480	507	513	3,000
	H	893	785	872	816	862	872	5,100
	I	1,225	1,078	1,197	1,120	1,183	1,197	7,000
	J	175	154	171	160	169	171	1,000
	K	18,953	16,978	18,519	17,328	18,303	18,519	108,300
	Total Sales	17.5	15.4	17.1	16.0	16.9	17.1	100%
	%							
	WESTERN TERRITORY							
	Schedule I Section c	A	262	231	257	240	254	256	1,500
B		5,075	4,466	4,950	4,640	4,901	4,950	20,000
C		53	46	51	48	51	51	300
D		53	46	51	48	51	51	300
E		2,100	1,848	2,052	1,920	2,038	2,052	12,000
F		122	108	120	112	118	120	700
G		87	77	85	80	85	86	500
H		76	88	86	80	85	85	500
I		210	185	205	192	203	205	1,200
J		...	...	...	...	...	...	...
TOTAL COMPANY	Total Sales	8,050	7,083	7,866	7,360	7,776	7,865	46,000
	%	17.5	15.4	17.1	16.0	16.9	17.1	100%
	A	5,337	4,697	5,216	4,880	5,155	5,215	30,500
	B	12,075	10,626	11,799	11,040	11,661	11,799	69,000
	C	438	385	427	400	423	427	2,500
	D	1,278	1,124	1,248	1,168	1,234	1,248	7,300
	E	14,700	12,936	14,364	13,440	14,106	14,364	84,000
	F	647	570	633	592	625	633	3,700
	G	962	847	940	880	930	941	5,500
	H	1,331	1,169	1,300	1,216	1,285	1,300	7,600
Schedule I Section d	I	1,960	1,725	1,915	1,792	1,893	1,915	11,200
	J	1,050	924	1,026	960	1,014	1,026	6,000
	K	39,778	35,023	38,868	36,368	38,416	38,867	227,300
	Total Sales	17.5	15.4	17.1	16.0	16.9	17.1	100%
	%							

NOTE: It will be noted that the seasonal trend as denoted by the percentages in the example above is the same in all territories. It is not likely that this would be the case in actual practice in many instances.

- (9) Schedule of accruals and prepayments:
 - (a) Taxes
 - (b) Fire insurance
- (10) Budget of repairs and replacements and betterments and additions (not illustrated or used in this example)
- (11) Journal entries covering anticipated transactions by months
- (12) Work sheets for the handling of journal entries and preparation of monthly cash receipts and disbursements statement, monthly income and expense statement and final balance sheet
- (13) Statement of anticipated profit and loss
- (14) Statement of cash receipts and disbursements
- (15) Comparative balance sheets and statement of application of funds and changes in working capital.

After you have all schedules very carefully prepared and take them to the executive, what he probably looks at is the last page, and says, "How much are we going to lose?"

"Well, we are going to lose \$19,000."

"How much is our cash going down?"

"The cash won't go down."

"That's fine. Let me know if it does not go that way."

All your work looks as though it is shot. I prepared this from an accountant's point of view. I think if we were preparing the budget for presentation to the chief executive I would put Schedule 15 on top, and would not use some of the others. I would leave them in the office in case somebody called for them. They are essential to arriving at the last figure correctly and accurately without doing it in a jerry-built manner so that you forget half the things you put into it.

Schedules 1, 2, 3 and 3a are self-explanatory.

Schedule 4 first divides the product into that which is purchased and that which is manufactured. It shows the inventory on hand at the beginning of the period, the anticipated withdrawals based on the schedule of cost of sales, and the inventory at the end of the period after withdrawals, that is, assuming you did not produce a thing.

You take out withdrawals, which will give you stock on hand. Then you put down your desired inventory, what you think you should have. That may be dictated by any number of reasons. In a declining market, protection against price changes. If you are in need of cash, it may be dictated by finances. In any event, you put down the desired inventory and then production is merely a matter of subtraction. However, you may get a production figure that will then involve very considerable argument.

Sources of data:
Market Research Reports and
Field Estimates
Prepared by: H. E. HARVEY
Checked by: H. E. HOWELL
11/1/33

BUDGET OF ANTICIPATED SALES FOR FIRST HALF 1933

BY TERRITORY—BY CUSTOMER GROUP

	Customer Group	January Estimate	Actual	February Estimate	Actual	March Estimate	Actual	April Estimate	Actual	May Estimate	Actual	June Estimate	Actual	Total First 6 Months Estimate	Actual
EASTERN TERRITORY	R	\$ 2,200		\$ 1,600		\$ 2,155		\$ 1,715		\$ 1,830		\$ 1,400		\$ 11,000	
	S	2,000		2,800		2,825		2,825		2,850		1,750		10,000	
	T	1,000		900		975		1,015		1,260		4,650		9,800	
	V	3,000		2,900		2,950		2,960		2,990		2,400		17,200	
	W	1,500		1,400		1,475		1,475		1,460		1,500		8,500	
	Totals	13,775		11,242		12,483		11,680		12,337		12,483		73,000	
SOUTHERN TERRITORY	R	2,602		2,835		2,848		2,546		3,112		3,157		17,100	
	S	2,053		2,335		2,071		2,790		2,743		2,726		14,500	
	T	4,566		3,002		3,355		3,319		3,253		3,324		21,800	
	V	3,238		2,668		2,938		2,773		2,920		3,464		17,000	
	W	3,831		3,336		3,704		3,265		3,660		3,204		21,000	
	Totals	18,953		16,678		18,519		17,328		18,303		18,519		108,300	
WESTERN TERRITORY	R	1,098		1,133		1,258		1,309		1,244		1,258		7,300	
	S	1,372		1,279		1,357		1,424		1,324		1,337		8,100	
	T	1,808		1,466		1,574		1,410		1,576		1,500		9,000	
	V	1,634		1,416		1,574		1,410		1,309		1,400		8,300	
	W	947		993		903		1,030		1,026		1,101		6,000	
	Totals	8,050		7,083		7,866		7,360		7,776		7,865		40,000	
TOTAL COMPANY	R	5,900		5,568		6,201		5,570		6,286		5,815		35,400	
	S	5,600		5,256		6,017		5,757		5,784		5,086		33,500	
	T	11,500		10,824		12,278		11,327		12,070		10,901		68,900	
	V	6,800		6,364		7,331		6,670		6,792		5,643		39,600	
	W	8,000		6,768		5,884		5,744		6,000		9,564		40,800	
	Totals	38,278		35,729		41,390		39,041		41,466		41,495		227,500	
	Total All Customers	39,778		35,003		38,868		36,368		38,416		38,867		227,300	

HOWELL-KEENE COMPANY

Schedule 3

Sources of data:
 Sales Budget
 Inventory Control
 Standard Cost Record
 Prepared by: F. L. HARVEY
 Checked by: H. E. HOWELL
 11/1/32

STATEMENT OF STANDARD COST OF SALES

PERIOD: FIRST 6 MONTHS 1933

Product	January		February		March		April		May		June		Total Selling Price	First 6 Months Standard Cost of Goods Sold
	Selling Price	Standard Cost of Goods Sold	Selling Price	Standard Cost of Goods Sold	Selling Price	Standard Cost of Goods Sold	Selling Price	Standard Cost of Goods Sold	Selling Price	Standard Cost of Goods Sold	Selling Price	Standard Cost of Goods Sold		
A	\$ 5,337	\$ 4,327	\$ 4,697	\$ 3,700	\$ 5,216	\$ 4,173	\$ 4,880	\$ 3,904	\$ 5,155	\$ 4,124	\$ 5,215	\$ 4,172	\$ 40,500	\$ 24,400
B	12,075	9,902	10,626	8,713	11,790	9,675	11,040	9,053	11,661	9,562	11,799	9,675	69,000	56,580
C	438	350	385	308	427	342	400	320	423	338	427	342	2,500	2,000
D	1,278	1,022	1,124	899	1,248	998	1,108	934	1,234	987	1,248	1,000	7,300	5,840
E	14,700	12,054	12,936	10,608	14,364	11,778	13,440	11,021	14,196	11,641	14,364	11,778	84,000	68,880
F	647	550	570	485	633	538	592	503	625	531	633	538	3,700	3,145
Total our mfr.	34,475	28,205	30,338	24,713	33,687	27,594	31,520	25,735	33,294	27,183	33,686	27,505	197,000	160,845
G	962	847	847	745	940	828	880	774	930	818	941	828	5,500	4,840
H	1,331	1,184	1,169	1,040	1,300	1,157	1,216	1,082	1,285	1,144	1,309	1,157	7,600	6,760
J	1,960	1,725	1,725	1,518	1,915	1,685	1,792	1,577	1,893	1,666	1,915	1,685	11,200	9,856
K	1,050	945	924	832	1,026	923	900	804	1,014	913	1,026	923	6,000	5,400
Total purchased	5,303	4,701	4,665	4,135	5,181	4,593	4,848	4,207	5,122	4,541	5,181	4,503	30,300	26,860
Total mfd. and pur'd	39,778	32,906	35,003	28,848	38,868	32,097	36,368	30,032	38,416	31,724	38,867	32,098	227,300	187,705

NOTE: Sales of each product are broken down into tons, pieces or some other unit. The Standard Cost System gives standard costs per ton or per unit and in the case of miscellaneous items gives the percentage relation of standard group cost to group sales price.

11/5/32

SCHEDULE OF INVENTORY BALANCES

SHOWING PRODUCTION AND COST OF SALES VARIANCES FROM STANDARD MATERIALS, A, B, C, D, E AND F
INVENTORY ACCOUNT

	Debits		Ratio	Credits		Balance	
	Standard	Actual		Standard	Actual	Standard	Actual
Balance: 1-1-33.....	\$	\$	%	\$	\$	\$	\$
January Credits.....				28,205	28,205	169,800	169,800
January Production.....	20,391	20,498					
Accum. Totals: 2-1-33.....	190,191	190,298	100.06			161,986	162,093
February Credits.....				24,713	24,728		
February Production.....	20,391	20,498					
Accum. Totals: 3-1-33.....	210,582	210,796	100.10			157,664	157,803
March Credits.....				52,918	52,933		
March Production.....	20,391	20,498		27,504	27,532		
Accum. Totals: 4-1-33.....	230,973	231,294	100.14			150,551	150,829
April Credits.....				80,422	80,465		
April Production.....	20,391	20,498		25,735	25,771		
Accum. Totals: 5-1-33.....	251,364	251,792	100.17			145,207	145,556
May Credits.....				106,157	106,236		
May Production.....	20,391	20,498		27,183	27,229		
Accum. Totals: 6-1-33.....	271,755	272,290	100.20			138,415	138,825
June Credits.....				133,340	133,465		
June Production.....	20,391	20,498		27,505	27,560		
Accum. Totals: 6-30-33.....	292,146	292,788	100.22			131,301	131,763

Note: In this case the cost variance for total manufactured product has been distributed as a unit but if necessary this same form can be used for each product and each variance separately distributed.

HOWELL-KEENE COMPANY

Schedule 4

STATEMENT OF INVENTORY DEMANDS AND

PERIOD: FIRST SIX

Product	Inventory 12/31/32	Esti- mated De- mand Janu- ary (Cost of Sales)	†De- sired Inven. 1/31/33	†Pur- chases or Prod. Re- quired Janu- ary	Est. De- mand Feb- ruary	De- sired Inven. 2/28/33	Pur- chases or Prod. Re- quired Feb- ruary	Est. De- mand March	Desired Inven. 3/31/33	Pur- chases or Prod. Re- quired March
A	\$ 24,000	4,327	23,106	3,433	3,700	22,840	3,434	4,173	22,100	3,433
B	58,000	9,902	55,528	7,430	8,713	54,245	7,430	9,675	52,000	7,430
C	2,100	350	2,017	267	308	1,975	266	342	1,900	267
D	6,500	1,022	6,185	707	899	5,993	707	998	5,701	706
E	76,000	12,054	72,093	8,147	10,608	69,631	8,146	11,778	66,000	8,147
F	3,200	550	3,057	407	485	2,979	407	538	2,849	408
Total Our Mfr.	169,800	28,205	161,986	20,391	24,713	157,663	20,390	27,504	150,550	20,391
G	5,100	847	5,593	1,340	745	5,848	1,000	828	5,020	....
H	7,300	1,184	7,780	1,664	1,040	7,740	1,000	1,157	6,583	....
J	10,800	1,725	11,931	2,856	1,518	11,413	1,000	1,685	9,728	....
K	5,900	945	6,555	1,600	832	5,723	....	923	4,800	....
Total Purchased	29,100	4,701	31,859	7,460	4,135	30,724	3,000	4,593	26,131	....
Total Mfd. & Purchd.	198,900	32,906	193,845	27,851	28,848	138,387	23,390	32,097	176,681	20,391
Raw Matl. for Mfr.	30,000	14,117	30,000	14,117	14,117	30,000	14,117	14,117	30,000	14,117
	228,900		223,845			218,387			206,681	

† Products G, H, J, K purchased for resale in same form.

It will be noted that the inventory is allowed to fluctuate during the period in order to maintain and the total estimated demand for the period inserted and the total production required is then figure purchases can be estimated to fall in those months when other expenditures are not excessive. Another

† The monthly desired inventory will be obtained by taking the inventory first of month, deducting

The production schedule is broken down to furnish shop operating data. The foundry work is translated into tons and into the number of days of foundry production. The machine work is broken down into the number of hours of productive labor. The necessary schedule of purchases of raw materials and supplies and the basis for the preparation of Schedule 5 is obtained from this report.

The preparation of Schedule 5 is facilitated if a standard cost system is in operation, but it can be prepared under a job order actual cost system if sufficient records are available to show the actual cost at varying rates of production. With a standard cost system it is a simple matter to figure the standard cost of production and its component parts of standard labor, standard material and standard expense and to bring over the variance due to running above or below normal.

Sources of data: Sales Budget
Inventory Control

Prepared by: F. L. HARVEY

Checked by: H. E. HOWELL 11/3/32

REQUIRED PRODUCTION AND PURCHASES

MONTHS 1933

Est. De- mand April	Desired Inven. 4/30/33	Purchs. or Prod. Re- quired April	Est. De- mand May	Desired Inven. 5/31/33	Purchs. or Prod. Re- quired May	Est. De- mand June	Desired Inven. 6/30/33	Purchs. or Prod. Re- quired June	Total First 6 Months	
									Esti- mated Demand	Purchs. or Prod. Re- quired
3,904	21,629	3,433	4,124	20,938	3,433	4,172	20,200	3,434	24,400	20,600
9,053	50,377	7,430	9,562	48,245	7,430	9,675	46,000	7,430	56,580	44,580
320	1,847	267	338	1,776	267	342	1,700	266	2,000	1,600
934	5,474	707	987	5,194	707	1,000	4,900	706	5,840	4,240
11,021	63,126	8,147	11,641	59,631	8,146	11,778	56,000	8,147	68,880	48,880
503	2,753	407	531	2,630	408	538	2,500	408	3,145	2,445
25,735	145,206	20,391	27,183	138,414	20,391	27,505	131,300	20,391	160,845	122,345
774	5,246	1,000	818	4,428	....	828	3,600	....	4,840	3,340
1,082	7,501	2,000	1,144	6,357	....	1,157	5,200	....	6,764	4,664
1,577	10,151	2,000	1,666	9,485	1,000	1,685	7,800	....	9,856	6,856
864	5,936	2,000	913	5,023	....	923	4,100	....	5,400	3,600
4,297	28,834	7,000	4,541	25,293	1,000	4,593	20,700	....	26,860	18,460
30,032	174,040	27,391	31,724	163,707	21,391	32,098	152,000	20,391	187,705	140,805
14,117	30,000	14,117	14,117	30,000	14,117	14,117	30,000	14,117	84,702	84,702
	204,040			193,707			182,000			

constant production over the period. To do this, an arbitrary inventory at the end of the period is set up and divided by 6 to get the monthly production, which is then inserted under the proper month. set of conditions may be worked on this schedule such as building up inventory, planning shut-downs, etc. demand and adding production or purchases as figured.

Suppose you anticipated production from Schedule 4 to be 40% capacity. If you have a standard cost system you do not have to worry much about computing variances ahead of time. If you have an actual cost system, you have to go through some figuring unless you come back to some period when your capacity was 40% or 60% or 80%. The important thing, however, is to remember to pick up the variances due to not running at normal production. Otherwise, you will have a considerable discrepancy in the budget.

There was a paper read at the New York Convention in 1928 by Mr. Kingsbury, who, I think, was controller of the American Rolling Mills, in which he discussed in great detail the budgeting and manufacturing operations. Some of us have an idea that if a paper was published five years ago it is not any good. I think you will find that 1928 paper well worth studying.

HOWELL-KEENE COMPANY

Schedule 5

Sources of data:
 Standard Cost System
 Capacity Variance Data
 Prepared by: F. L. HARVEY
 Checked by: H. E. HOWELL
 11/2/32

STATEMENT OF COST OF PRODUCTION

Product	JANUARY										FEB. MAR. APR. MAY JUNE					TOTAL FIRST SIX MONTHS					Est. Variation from Std. Profit (-) Excess Cost (+) Cost below Std.									
	Mfg. Div.		Std. Cost Raw Mtl.*		Std. Cost Lbr.		Std. Over-head		Mfg. Div.		Std. Cost Raw Mtl.		Std. Cost Lbr.		Std. Over-head		Mfg. Div.		Std. Cost Raw Mtl.			Std. Cost Lbr.		Std. Over-head						
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		\$	\$	\$	\$					
A	3,433	2,060	1,030	343	+	46	Figures not repeated as they are same as for January due to planning equal production each month per schedule of Inventory demands.																		20,600	12,360	6,182	2,058	+	276
B	7,430	5,573	1,485	372	-	106																			44,580	33,437	8,911	2,232	-	636
C	267	133	94	40	-	4																			1,600	800	560	240	-	24
D	707	424	212	71	...	...																			4,240	2,544	1,270	426	-	...
E	8,147	5,703	1,629	815	-	38																			48,880	34,216	9,774	4,890	-	228
F	407	224	122	61	-	5																			2,445	1,345	734	366	-	30
Totals	20,391	14,117	4,572	1,702	-	107																			122,345	84,702	27,431	10,212	-	642

* If own foundry is operated to manufacture the raw material this column will be broken in sub-schedule to show Standard Foundry Labor, Material and Expense and Variance.

HOWELL-KEENE COMPANY

Sources of data:

Field Reports

Market Research Reports

Schedule 6a

Prepared by: F. L. HARVEY

Checked by: H. E. HOWELL

11/2/32

SALES EXPENSE BUDGETS

PERIOD: FIRST 6 MONTHS 1933

Eastern Territory

	Jan.	Feb.	Mar.	Apr.	May	June	Total First 6 Months
Compensation.....	\$ 805	800	810	805	800	800	4,820
Travel.....	265	213	201	200	250	271	1,400
Engineering.....	10	..	10	10	10	10	50
Stationery and Supplies.	20	15	20	15	20	10	100
Telephone and Telegraph	60	50	60	60	60	60	350
Commission.....	..	..	..	..	..	..	...
Miscellaneous.....	10	10	10	10	10	10	60
Catalogs.....	25	25	25	25	25	25	150
Dues and Subscriptions.	10	..	5	..	10	5	30
Fixed Charges.....	47	47	59	47	47	58	305
Totals.....	1,252	1,160	1,200	1,172	1,232	1,249	7,265

Southern Territory

	Jan.	Feb.	Mar.	Apr.	May	June	Total First 6 Months
Compensation.....	1,080	1,060	1,065	1,065	1,065	1,065	6,400
Travel.....	231	235	276	287	345	326	1,700
Engineering.....	100	36	100	50	50	50	386
Stationery and Supplies.	40	20	30	30	30	30	180
Telephone and Telegraph	90	75	90	80	85	80	500
Commission.....	150	50	50	39	50	50	389
Miscellaneous.....	38	38	38	38	38	38	228
Catalogs.....	56	56	56	56	57	56	337
Dues and Subscriptions.	35	..	40	10	30	40	155
Fixed Charges.....	80	80	105	80	80	105	530
Totals.....	1,900	1,650	1,850	1,735	1,830	1,840	10,805

Western Territory

	Jan.	Feb.	Mar.	Apr.	May	June	Total First 6 Months
Compensation.....	485	480	485	480	485	485	2,900
Travel.....	151	82	111	92	133	111	680
Engineering.....	17	15	17	17	17	17	100
Stationery and Supplies.	14	10	14	14	14	14	80
Telephone and Telegraph	28	27	28	27	27	28	165
Commission.....	25	10	25	25	25	25	135
Miscellaneous.....	5	5	5	5	5	5	30
Catalogs.....	13	10	13	13	13	18	80
Dues and Subscriptions.	..	..	..	..	..	10	10
Fixed Charges.....	62	61	77	62	61	77	400
Totals.....	800	700	775	735	780	790	4,580

HOWELL-KEENE COMPANY

Schedule 6d, etc.

Sources of data: Division Managers

Period: 1st 6 months 1933

Prepared by: F. L. HARVEY

Checked by: H. E. HOWELL

11/1/32

DETAILED EXPENSE BUDGETS

Section b. Manufacturing Expense Budget

	Jan.	Feb.	Mar.	Apr.	May	June	Total First 6 Months
Sup. and Clerical Labor	2,835	2,830	2,830	2,830	2,830	2,830	3,000
Stationery and Sup. ..	8	8	9	8	9	8	50
Tel. and Tel.	5	5	5	5	5	5	30
Shop Lia. Insurance ..	10	10	10	10	10	10	60
Fixed Charges.....	1,286	1,286	1,285	1,286	1,285	1,286	7,714
Total Mfg. Expense...	1,809	1,809	1,809	1,809	1,809	1,809	10,854
Transfer to Output (Std. Overhead).....	1,702	1,702	1,702	1,702	1,702	1,702	10,212
Variation from Std. ...	107	107	107	107	107	107	642

Section d. Administrative Expense Budget

	Jan.	Feb.	Mar.	Apr.	May	June	Total First 6 Months
Officers' Salaries.....	2,835	2,835	2,835	2,835	2,835	2,830	17,000
Office Salaries.....	1,167	1,167	1,166	1,167	1,166	1,167	7,000
Stationery and Sup. ..	100	50	50	100	50	50	400
Tel. and Tel.	37	38	38	37	38	37	225
Dues and Subscriptions	50	50	50	50	50	50	300
Misc.	67	66	67	66	67	67	400
Fixed Charges.....	30	30	40	30	30	40	200
Totals	4,231	4,246	4,285	4,236	4,241	4,241	25,525

Section c. Advertising Department Budget

	Jan.	Feb.	Mar.	Apr.	May	June	Total First 6 Months
Services and Fees..	200	200	200	200	200	200	1,200
Trade Paper.....	200	200	200	100	200	200	1,000
Catalogs.....	200	...	350	...	17	...	507
National.....	350	325	325	350	325	325	2,000
Totals.....	950	725	975	650	742	725	4,767
Trans. to Sales Dept. (Catalogs)	94	91	94	94	95	99	567
Net.....	856	634	881	556	647	626	4,200

Section e. Fixed Operating Expense

	Jan.	Feb.	Mar.	Apr.	May	June	Total First 6 Months
Janitor's Wages...	100	100	100	100	100	100	600
Repairs to R.E.	25	30	30	60	30	25	200
Depreciation.....	464	465	465	465	464	464	2,787
Taxes.....	935	935	935	935	935	935	5,610
Fire Insurance.....	42	42	42	42	42	42	252
Total Expense.....	1,566	1,572	1,572	1,602	1,571	1,566	9,449
Trans. as Fixed Charge to:							
Mfg. Expense...	1,286	1,286	1,285	1,286	1,285	1,286	7,714
Sales Expense...	189	188	241	189	188	240	1,235
Adm. Expense ..	30	30	40	30	30	40	200
Total Transfer.....	1,505	1,504	1,566	1,505	1,503	1,566	9,149
Unabsorbed.....	61	68	6	97	68	...	300

BUDGETARY CONTROL

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HOWELL-KEENE COMPANY
Schedule of

EXPENSE LEDGER

No.	Item	J A N U A R Y			F E B R U A R Y			Etc.
		Debit	Ref.	Bal.	Debit	Ref.	Bal.	
	Compensation	*						
							
							
							
							
	Actual Budget Status **							
	Travel							
							
							
							
	Actual Budget Status							
	Total Actual							
	Total Budget							
	Status							

* Credits shown in red.

** Number of Months of Budget Allowance Consumed by Actual.

HOWELL-KEENE COMPANY
Schedule 7

Source of data:

Ledger Experience

Prepared by: F. L. HARVEY

Checked by: H. E. HOWELL
11/2/32

SCHEDULE OF ANTICIPATED COLLECTIONS FROM SALES

[illegible]

BUDGETARY CONTROL

[illegible]

HOWELL-KEENE COMPANY
Schedule 8a 8c

Sources of data: Detailed Budgets
Prepared by: F. L. HARVEY
Checked by: H. E. HOWELL 11/4/32

SCHEDULE OF ANTICIPATED EXPENDITURES

PERIOD: FIRST SIX MONTHS 1933

	January	February	March	April	May	June	Total First 6 Months
<i>a. For Labor:</i>							
Sales Expense Compensation.....	\$ 805	\$ 800	\$ 810	\$ 805	\$ 800	\$ 800	\$ 4,820
N							
S	1,080	1,060	1,065	1,065	1,065	1,065	6,400
W	485	480	485	480	485	485	2,900
Admin. Expense—Officers' Salaries.....	2,835	2,830	2,835	2,835	2,835	2,830	17,000
Admin. Expense—Office Salaries.....	1,167	1,167	1,166	1,167	1,166	1,167	7,000
Factory Labor.....	4,572	4,572	4,572	4,572	4,572	4,571	27,431
Mfg. Expense Indirect Labor.....	500	500	500	500	500	500	3,000
Fixed Oper. Expenses Indirect Labor.....	100	100	100	100	100	100	600
Total Expenses for Labor.....	11,544	11,509	11,533	11,524	11,523	11,518	69,151
<i>c. For Traveling Expenses:</i>							
Sales Department.....	265	213	201	200	250	271	1,400
S	231	235	276	287	345	326	1,700
W	151	82	111	92	133	111	680
Totals.....	647	530	588	579	728	708	3,780
<i>For Stationery and Supplies:</i>							
Sales Department.....	20	15	20	15	20	10	100
S	40	20	30	30	30	30	180
W	14	10	14	14	14	14	80
Administrative.....	100	50	50	100	50	50	400
Manufacturing.....	8	8	9	8	9	8	50
Total Expenses for Stationery and Supplies.....	182	103	123	167	123	112	810

<i>For Telephone and Telegraph:</i>									
Sales Department.....	N	60	50	60	60	60	60	60	350
	S	90	75	90	80	85	80	80	500
	W	28	27	28	27	27	28	28	165
Administrative.....		37	38	38	37	38	37	37	225
Manufacturing.....		5	5	5	5	5	5	5	30
Total Expense for Telephone and Telegraph		220	195	221	209	215	210	210	1,270
<i>For Dues and Subscriptions:</i>									
Sales Department.....	N	10	..	5	..	10	5	5	30
	S	35	..	40	10	30	40	40	155
	W	..	..	..	..	..	10	10	10
Administrative.....		50	50	50	50	50	50	50	300
Total Expense for Dues and Subscriptions		95	50	95	60	90	105	105	495
<i>For Miscellaneous Disbursements:</i>									
Sales Department.....	N	10	10	10	10	10	10	10	60
	S	38	38	38	38	38	38	38	228
	W	5	5	5	5	5	5	5	30
Administrative.....		67	66	67	66	67	67	67	400
Total Expense for Miscellaneous		120	119	120	119	120	120	120	718

For Engineering Commissions, Repairs, Shop Liability Insurance and Advertising. Similar to above—omitted to save space.

Each budget under Schedule 6 is used not only in the preparation of the master budget, but constantly during the period as a means of controlling expense and increasing efficiency. I should like to have it understood that those budgets do not represent the highest efficiency or the best conditions. They represent the facts as they are. It may take you a couple of years to get some of them so that the budget and what you would like to see is the same thing.

I do not like to see a budget operated as a sort of whip to force the management to do through bookkeeping what they should do through just exercising a little courage.

In this connection, there was a very splendid paper published in our N. A. C. A. Bulletin of March 1, 1933. It was written by Mr. Kleinschmidt of the York Ice Machinery Corporation, of York, Pa., on the budgeting of branch office expenses. It is a perfectly splendid paper and there is no need of you fellows belonging to the N. A. C. A. listening to me when I tell you about it. You can read it.

Schedule 7 is a very important record. It is a most interesting one in checking up your credit and collection departments and a very vital one in times when collections slow up and banks close. All of the schedules, as you can see, fit into a scheme of checking up various operations as well as tying into this final figure.

Schedule 8 covers expenditures. There is nothing very important about it except the expenditures for labor. Again I refer you to standard cost systems and budgets that have been set for labor and overhead at varying rates of production. That subject has been thoroughly covered and it certainly will wreck your budgets if you have not adequate control of labor at varying rates of production.

Just the matter, for instance, of the last few weeks when there has been a rush of business and men have been hired. The natural tendency will be if you have not adequate control by standards, you will have excess forces for months longer than they are needed if business should fall off. What we want to have is control so that we have the right amount of labor and right amount of expense for the production that we have at any particular time. That expenditure budget, tying right through the shop budgeting system ought to help you control labor.

There is nothing important about Schedule 9.

Schedule 10 (not illustrated) is the budget of repairs and replacements and additions and betterments. Some of us are inclined to think that is not very important because we are not going to build a new plant this year. I omitted Schedule 10 for the reason that all it does is

HOWELL-KEENE COMPANY
Schedule 86

Prepared by: F. L. HARVEY
Checked by: H. E. HOWELL
11/2/32

SCHEDULE OF MATERIAL PURCHASES AND PAYMENTS FOR SAME

Estimated Purchases of Material for Manufacture		Jan.	Feb.	Mar.	Apr.	May	June	Total First 6 Months	Disc. Earned	Accts. Payable
Terms Net Cash 30 Days										
Date of Purchase	Amount									
Dec. Balance	14,117	14,117								14,117 1/1
Jan. 1st	14,117		14,117							
Feb. 1st	14,117			14,117						
Mar. 1st	14,117				14,117					
Apr. 1st	14,117					14,117				
May 1st	14,117						14,117			
June 1st	14,117									
Total Material for Production		14,117	14,117	14,117	14,117	14,117	14,117	84,702		14,117 6/30
Est. Purchases of Matl. H, J and K										
Terms 2% 10 Days Net 30—All bills to be discounted										
Date of Purchase	Amount									
Jan. 10th	7,460	7,311							149	
Feb.	3,000		2,940						60	
Mar.										
Apr.	7,000				6,860				140	
May	1,000					980			20	
June										
Total Material for Resale		7,311	2,940		6,860	980		18,091	369	

HOWELL-KEENE COMPANY
Schedule 9

Sources of data:
Tax Files
Premium Record
Prepared by: F. L. HARVEY
Checked by: H. E. HOWELL 11/2/32

SCHEDULE OF ACCRUALS

Section a. Schedule of Taxes and Payment Dates

	Jan.	Feb.	Mar.	Apr.	May	June	Total Applicable to This Period
Real Estate.....			4200				2100
Personal Property.....							2000
Misc. City and County.....		1030					510
Other.....							1000
Total Payments by Months.....		1020	4200				5610
Total Est. Taxes for Period.....							5610
Charged to Reserve Which Is Set Up Monthly for.....	935	935	935	935	935	935	
Balance in Reserve Accounts 1/1/33.....	\$7435						
Est. in Reserve Accounts 6/30/33.....	7825						

Section b. Schedule of Fire Insurance and Payment Dates

	Jan.	Feb.	Mar.	Apr.	May	June	Total Applicable to This Period
Total Payments by Months.....							252
Monthly Reserve Set-up.....	42	42	42	42	504	42	252
Balance in Prepaid Account 1/1/33.....	\$168						
Balance in Prepaid Account 6/30/33.....	420						

list the new additions and betterments, and it is not a vital thing right at this time.

I would not ignore it, however, for this simple reason: Sometimes the betterment involved is only a small machine. But how many times have we seen a master mechanic or manager go to a show and see some magnificent new machine that turns out five times as fast as his old machine does. He buys it and puts it in and then has it lie idle for 95% of the time, due to the fact that he does not have the production to keep the machine running.

So, if you can tie in the purchases of new equipment through this budget, that may give you a chance to check into the old machine and show that the excess labor cost from using it for the next ten or fifteen years would not be any greater than the initial investment in the new machine.

Each budget under Schedule 6 is used not only in the preparation of the master budget, but constantly during the period as a means of controlling expense and increasing efficiency. These budgets of anticipated expense are continually checked against the standards and are the subject of special cost investigations.

The expense budgets are journalized as debits to various expense accounts and credits to Sundry Accrued Payables and Reserve for Depreciation, and then a summary by items such as salaries, supplies, rent, etc., is used to prepare a schedule of payments from which the journal entry debiting Sundry Accrued Payables and crediting Cash is derived.

From the production schedule, it is necessary to set up the anticipated cost of manufacture. The actual labor and material is a debit to separate labor and material accounts and a credit to Sundry Accrued Payables, the actual expense having already been set up. The actual labor, material and expense accounts are then closed into their respective variance accounts.

From this same schedule the standard cost of production is journalized as a debit to Inventory and credit to labor, material and expense variance accounts.

The schedule of those items paid in the budget period is a debit to Sundry Accrued Payables and a credit to Cash.

From the schedule of inventory demand, the total purchases for resale is journalized as a debit to Inventory and a credit to Sundry Accrued Payables. From the schedule of payments an entry is made for items paid debiting Sundry Accrued Payables and crediting Discount Receipts and Cash.

HOWELL-KEENE COMPANY
Schedule 12

WORK SHEET
FIRST HALF

	Trial Balance 1-1-33	Other Accounts	
		January	to June*
		Dr.	Cr.
Cash.....	95,000		
January.....		35,074 B	35,323 1
February.....		36,615 B	31,459 1
March.....		34,351 B	32,214 1
April.....		37,085 B	34,496 1
May.....		34,854 B	29,334 1
June.....		36,786 B	27,802 1
Accounts Receivable.....	65,864		
January.....		39,778 A	35,450 1
February.....		35,003 A	37,001 1
March.....		38,868 A	34,684 1
April.....		36,368 A	37,453 1
May.....		38,416 A	35,199 1
June.....		38,867 A	37,150 1
Inventory Raw Material.....	30,000		
Inventory Finished Goods.....	198,900		
		122,345 H	187,705 1
		18,460 K	
		642 J	180 1
Inventory Variance.....			
Real Estate.....	100,000		
Machinery.....	100,000		
Fixtures and Equipment.....	78,700		
Prepaid Insurance.....	168	252 E	
Std. Cost of Sales Our Mfr.....		160,845	
Variance from Standard Cost.....		180	
Cost of Sales Purchased.....		26,860	
Sales Discounts.....		2,172	
Bad Debts.....		6,820	
Sales Expense North.....		7,265	
South.....		10,805	
West.....		4,580	
Administrative Expense.....		25,525	
Advertising.....		4,200	
Fixed Operating Expense.....		300	
Manufacturing Expense.....		10,854 D	10,854 (
Labor.....		27,431 F	27,431 (
Labor Variance.....		27,431 G	27,431 F
Material Variance.....		84,702 G	84,702 F
Expense Variance.....		10,854 G	10,212 F
			642
Total Debits.....	668,632		
Sundry Accrued Payables.....	14,117	138 E	60,742 I
		191,197 N	112,133 1
			18,460 F
Reserve for Taxes.....	7,435		390 1
Reserve for Bad Debts.....			6,820 (
Reserve for Depreciation.....	45,000		2,787 I
Sales Our Manufacture.....			197,000
Sales Purchased Goods.....			30,300
Discount on Purchases.....			369
Capital.....	275,000		
Profit and Loss			
Transferred to: Surplus.....	327,080		
Total Credits.....	668,632	1,270,625	1,270,625

* Where there are many cash transactions, use horizontal columns to facilitate preparation

BUDGETARY CONTROL

241

Prepared by: F. L. HARVEY
 Checked by: H. E. HOWELL

FOR BUDGET

1933

Profit and Loss						Balance Sheet
January	February	March	April	May	June	6-30-33
						118,937
						76,227
						30,000
						152,000
						462
						100,000
						100,000
						78,700
						420
28,205 L	24,713 L	27,504 L	25,735 L	27,183 L	27,505 L	
	15 M	28 M	36 M	46 M	55 M	
4,701 L	4,135 L	4,593 L	4,297 L	4,541 L	4,593 L	
376 B	386 B	333 B	368 B	345 B	364 B	
1,195 C	1,050 C	1,166 C	1,091 C	1,152 C	1,166 C	
1,252 D	1,160 D	1,200 D	1,172 D	1,232 D	1,249 D	
1,900 D	1,650 D	1,850 D	1,735 D	1,830 D	1,840 D	
800 D	700 D	775 D	735 D	780 D	790 D	
4,286 D	4,231 D	4,246 D	4,285 D	4,236 D	4,241 D	
856 D	634 D	881 D	556 D	647 D	626 D	
61 D	68 D	6 D	97 D	68 D		
43,632	38,742	42,582	40,107	42,060	42,429	656,746
						14,117
						7,825
						6,820
						47,787
34,475 A	30,338 A	33,687 A	31,520 A	33,294 A	33,686 A	
5,303 A	4,665 A	5,181 A	4,848 A	5,122 A	5,181 A	
149 N	60 N		140 N	20 N		
L 3,705	L 3,679	L 3,714	L 3,599	L 3,624	L 3,562	275,000
						305,197
43,632	38,742	42,582	40,107	42,060	42,429	656,746

Cash Receipts and Disbursements statement.

From the standard cost of sales schedule an entry is made debiting Cost of Sales and crediting Inventory at Standard Prices. At the same time the portion of variance applicable to cost of sales is picked up.

It will be noted that all of the necessary expenditures for labor, material, and expenses of various kinds are credited to Sundry Accrued Payables. If necessary, these accruals can be kept separate as accruals for labor, accruals for vendors, etc.

In order to simplify and at the same time to provide all the necessary information so that the balance sheet at the end of the period will be complete, it is not necessary to trace through all of the reserve and accrual entries. For example, at the beginning of the year there is undoubtedly a reserve set up for accrued state and county taxes. At the end of six months it is possible to prepare a schedule of what should be in the accrual account at that time. Instead of trying to trace all of the items through the books by means of journal entries, the accrual at the beginning of the year is credited into Profit and Loss and the estimated accruals which should be on the books at the end of June are set up on the books by a debit to Profit and Loss and a credit to Accrued Taxes.

A master set of journal entries with fly-sheets for each quarter or for each month facilitates journalizing and helps to avoid omission of items.

In analyzing a variation between the budget and actual operations it can very often be localized quickly by showing along side of these journal entries for anticipated transactions the journal entries eventually made covering the actual transactions.

The next step is the preparation of the work sheet, and if it is carefully designed it will show the entire picture resulting from the anticipated transactions for the budgeted period. It shows the balance sheet at the beginning of the period and the balance sheet at the end of the period and all of the transactions for the intervening period. In order to prepare a monthly cash receipts and disbursements statement and a monthly profit and loss statement, the entries affecting these accounts are posted to separate columns for each month while all of the entries affecting the other accounts are combined in one column.

Budgeting is a continuous process and master budgets must continually be brought into line with changing conditions. The method shown involving the use of journal entries and the work sheet makes the adjustment of the budget a simple matter and free from errors or omissions due to not "following through" every transaction.

A good many times a variation occurs and they say, "That affects our sales," and they will change the sales budget but forget all the other

things it does affect. If you follow through with a set of entries, you cannot miss those things.

Schedules 13, 14 and 15 are self-explanatory and their chief value lies in the fact that they clearly point out to the management the end to which the present course is leading. If that end is unsatisfactory, it gives the management an opportunity for remedial action.

I suppose after you very carefully prepared this whole set of budgets, and on November 1 said, "This is for the first six months of 1934," you would be very disappointed if all those figures were ruined. That is what should happen if this condition as reflected in Schedule 15 is not satisfactory to the management.

They might say, "We won't pay for this loss out of inventory. We cannot pay for it. We are going to increase sales or going to cut costs." In such a case you have a variation from your budget before it actually goes into operation. That is when the budget is really worthwhile. If it is never used from then on, they have taken some remedial action six months ahead of time, instead of after it has all happened, and that would justify the work you put in on it.

The questions answered by the statements of anticipated profit and loss, anticipated cash receipts and disbursements, the comparative balance sheets and statement of application of funds, with the supporting detailed budgets, are as follows:

(1) What is the expected profit?

(If we are in the kind of business where there is an expected profit and we can hope to get it, we can add Mr. Castenholz' question, "Is that a sufficient return on investment?" In the last two or three years if there was a profit at all most of us have stopped with the first point—grateful for any profit, even if inadequate.)

(2) Is this amount of profit satisfactory?

(3) If not, what is the reason?

(4) How can the prospect be improved?

(5) If there are losses, where do they occur?

(6) In any event, how are the operations to be financed?

Again, in some institutions this last point does not make any difference. In others it is vital.

If the financing is too great a strain on the cash, can the operations be financed from inventories or from some other group of assets, or do we have to borrow from the banks? If so, are we going to have the kind of balance sheet we can borrow on from the bank?

This set of statements shows more clearly than any other presenta-

HOWELL-KEENE COMPANY
Schedule 13

Source of data: Work Sheet
Prepared by: F. L. HARVEY
Checked by: H. E. HOWELL
11/4/32

STATEMENT OF PROFIT AND LOSS

PERIOD: FIRST 6 MONTHS 1933

	January	February	March	April	May	June	Total First 6 Months	Actual
Sales Our Manufacture.....	\$ 34,475	\$ 30,338	\$ 33,687	\$ 31,520	\$ 33,294	\$ 33,686	\$ 197,000	
Sales Purchased.....	5,303	4,665	5,181	4,848	5,122	5,181	30,300	
Total Sales.....	39,778	35,003	38,868	36,368	38,416	38,867	227,300	
Less Sales Discounts.....	376	386	333	368	345	364	2,172	
Net Sales.....	39,402	34,617	38,535	36,000	38,071	38,503	225,128	
Std. Cost of Sales Our Manufacture.....	28,205	24,713	27,504	25,735	27,183	27,505	160,845	
Variance Applicable to Cost of Sales.....	...	15	28	36	46	55	180	
Cost of Sales Purchased Goods.....	4,701	4,135	4,593	4,207	4,541	4,593	26,860	
Total Cost of Sales.....	32,906	28,863	32,125	30,068	31,770	32,153	187,885	
Gross Profit.....	6,496	5,754	6,410	5,932	6,301	6,350	37,243	
Selling Expense: Eastern.....	1,252	1,160	1,200	1,172	1,232	1,249	7,265	
Southern.....	1,000	1,650	1,850	1,735	1,830	1,840	10,805	
Western.....	800	700	775	735	780	790	4,580	
Total Selling Expense.....	3,952	3,510	3,825	3,642	3,842	3,879	22,650	
Administrative Expense.....	4,286	4,231	4,246	4,285	4,236	4,241	25,525	
Fixed Operating Expense Unabsorbed.....	61	68	6	97	68	...	300	
Advertising.....	856	634	881	550	647	626	4,200	
Total All Expense.....	9,155	8,443	8,958	8,580	8,793	8,746	52,675	
Operating Profit.....	L 2,659	L 2,689	L 2,548	L 2,648	L 2,492	L 2,396	L 15,432	
Plus Discounts on Purchases.....	G 60	G 60	...	140	20	...	G 360	
Less Bad Debts.....	L 1,195	L 1,050	L 1,166	L 1,001	L 1,152	L 1,166	L 6,820	
Net Available for Addition to Surplus.....	L 3,705	L 3,679	L 3,714	L 3,599	L 3,624	L 3,562	L 21,883	

HOWELL-KEENE COMPANY
Schedule 14

Source of data: Work Sheet
Prepared by: F. L. HARVEY
Checked by: H. E. HOWELL
11/4/32

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS

PERIOD: FIRST SIX MONTHS 1933

	January	February	March	April	May	June	Total First 6 Months	Actual
Cash on Hand First of Month.....	\$ 95,000	\$ 94,551	\$ 99,707	\$ 101,844	\$ 104,433	\$ 109,953	\$	
Receipts:								
Sales Collections.....	35,074	36,615	34,351	37,085	34,854	36,786	214,765	
Notes Receivable.....	Omitted for Simplicity							
Interest.....								
Miscellaneous.....								
Total Receipts.....	35,074	36,615	34,351	37,085	34,854	36,786	214,765	
Disbursements:								
Labor and Salaries.....	11,544	11,509	11,533	11,524	11,523	11,518	69,151	
Materials for Production.....	14,117	14,117	14,117	14,117	14,117	14,117	84,702	
Materials for Resale.....	7,311	2,940		6,860	980		18,091	
Traveling Expense.....	647	530	588	570	728	708	3,780	
Stationery and Supplies.....	182	103	123	167	123	112	810	
Telephone and Telegraph.....	220	195	221	200	215	210	1,270	
Dues and Subscriptions.....	95	50	95	66	90	105	495	
Engineering.....	127	51	127	77	77	77	536	
Commissions.....	175	60	75	64	75	75	524	
Repairs to Real Estate.....	25	30	30	60	39	25	200	
Taxes.....		1,020	4,200				5,220	
Fire Insurance.....							504	
Shop Liability Insurance.....	10	10	10			10	60	
Advertising.....		725	975	650	742	725	4,767	
Miscellaneous.....	120	119	120	119	120	120	718	
Total Disbursements.....	35,523	31,459	32,214	34,496	29,334	27,802	190,828	
Cash Balance End of Month.....	94,551	99,707	101,844	104,433	109,953	118,937	118,937	

HOWELL-KRINE COMPANY
Schedule 15

Prepared by: F. L. HARVEY
Checked by: H. E. HOWELL 11/4/32

STATEMENT OF SOURCES AND DISPOSITION OF FUNDS

Summary of Balance Sheet Changes from 1-1-33 to 6-30-33

Sources of Funds

Current Assets Decreased	
Inventory (Actual)	46,438
Fixed Assets Decreased	
Depreciation	2,787
Current Liabilities Increased	
Taxes Accrued	390
Total	<u>49,615</u>

Disposition of Funds

Current Assets Increased	
Cash	23,937
Accounts Receivable (Net)	3,543
Advance Payments Increased	
Insurance	252
Loss per Profit and Loss Statement	21,883
Total	<u>49,615</u>

Prepared from Comparative Balance Sheets shown on the Work Sheets.

tion the effect of all the operations and actions which convert cash back to cash and the master budgets with their supporting schedules, if properly prepared, clearly indicate the course to any desired end.

The period over which you should budget varies in the business. Sometimes you cannot budget more than three or six months in advance. I think any management of a concern which does not have a product requiring too long a period of time for processing, or too great an investment in inventory should be rather pleased if, say, on November 1 they could get a picture based on the facts known at that time, of what would happen in the first six months. They cannot expect anybody to tell them in November what is going to happen in the first six months on events as they will occur in January. "To the best of everybody's knowledge as of November 1, *this* is what will happen." That seems to me a lot more effective than waiting until it does happen, and trying to correct things in a hurry.

There is one thing that might be of help and that is the interim variation. Changes occur constantly, as I have said. Sometimes as soon as the budgets are issued they cause action which changes them.

HOWELL-KEENE COMPANY
Schedule 15 (Cont'd.)

SUMMARY

The anticipated loss from operations, not including depreciation charges, is estimated to be		\$19,096
The budget calls for the financing of the loss from reduction in Inventory and for the building up of the Cash Balance from the same sources.		
Reduction in Inventory		<u>\$46,438</u>
Used to build up Cash Balance through Collected		
Receivables	\$23,937	
In Receivables uncollected	3,543	
	<u>\$27,480</u>	
To finance loss	19,096	
	<u>\$46,576</u>	
Less: Net of accrued items	138	
	<u></u>	<u>\$46,438</u>

It is essential that manufacturing and purchasing schedules be closely supervised, that collections be maintained as scheduled, and expenditures held to the budget if this loss is to be financed out of Inventory and not out of Cash.

I think sometimes it is a mistake to wipe out all the budgets and start all over again. In fact, I would not do it. I would take each one of those things.

Suppose, instead of cutting the accountant's salary, they decided to raise him 10%. Let us be optimistic. We can have variation number 1—increase in salaries for everybody, including the cost accountant, of 10%. It is very easy to figure how much that is, and in a brief statement on schedule number 1 you can say, "This will decrease the profits so much, and increase the cash disbursements so much, and change the final figures so much."

Let us say on January 15 the price of everything we sell goes up 20%. All we have to do is to head up a sheet—variation number 2, change due to increase in prices of 20% on January 15—increase to sales, increase to profit, increase to collections, instead of gumming up the master budget.

Another nice thing is that the management can see clearly what changes have taken place in this period. I think that trying to continually refigure your budget and make it tie in with the actual figures

is a mistake, even if you can do it. There is absolutely nothing wrong with the budget that does not agree with the actual figures, if, because of some action the budget caused you to take, the actual figures are very much better than the budget.

Sometimes you have to get out an emergency edition of the budget. For instance, in the recent push with increased sales, it may be necessary to increase the production schedules. It is much better to do that on the same theories on which you outlined the original inventory than to just let the shop run full speed and a couple of weeks after the orders cease to be shipped, to find that the shop is still operating on full schedule, and then perhaps a month afterward shut it down.

There ought to be some computation of what that excess and unusual demand really is and then a budget made of the production necessary to take care of it, and if that emergency budget has to be put into effect again, so much the better. But do not let it upset the basic set-up because we have had a lot of violent and short fluctuations and we want to be sure before we go ahead.

The budget is nothing more than intentional planning. It is necessary to remember its limitations. It will not correct the ills of an industry. It will not wipe out unemployment. It will not be a substitute for management. It can point out the right course but it cannot steer the ship.

It is important not to let it become an expensive overhead routine, nor must it become an additional piece of bookkeeping. While the effect of budgeting must permeate the whole organization its operation should be an undivided responsibility, although the policies and actions dictated by the budget should be put into effect by the chief executive officer of the company through regular organization lines.

The psychology used in handling the budget with the men in the field is most important. If the budget does not educate them in the economics of their own particular unit it has failed. For that purpose many field budgets are accepted which do not agree with the final ones used in the master budget. Before the year is out actual results will show whether the field budget was right or wrong and a careful analysis in the light of this experience will reveal the points which were overlooked in its preparation and educational results of lasting value will be obtained.

I do not think it is necessary to have elaborate systems of reporting these things. I do not positively know. It all depends upon the set-up in the concern, but I think monthly or weekly statements get tiresome.

We get tired of looking at them or making them up. So long as everything is all right, why report about it? I think the most effective way of handling these things is to have your accounting department set up so that when a variation occurs, it is reported to the budget director.

Maybe he will write a letter and say, "Dear Bill: We notice this is out, and what is the trouble?"

Or, we might go to see the man and find out what it is, and take that little item and get it corrected in such a way that the man who is responsible for getting it out of line knows when you get through with him why he was out of line, and so that he thoroughly understands it and won't get out of line again. Unless you teach him why he is wrong, you will still have that variation to contend with.

I like the principle that is used in standard cost accounting, that is, that you do not account for anything but what is wrong. The same system in reporting, I think, is very effective.

Where actual conditions line up satisfactorily, no reports are needed, although a letter of commendation or a field visit is a considerable help.

Where actual conditions are not lining up with the budget, it is usually best to find out what is the matter by a visit to the field. The very men capable of understanding accounting reports are probably the least suitable for selling and for that reason a set form of report does not satisfactorily handle questions of this type, as the real advantage in the budget is the education which it gives in the principles of sound management, and these can only be developed and brought out by personal contact and a presentation to the man based on his personality.

This matter has this importance—with all these trade association activities, I feel that there will be a tremendous urge to budget. They will want to know where we get off under this New Deal. A great many men will be thrown into the job of budgeting. I feel it is a job that requires tremendous preparation. You can go off on the wrong foot a good many times, and no matter how long you have been budgeting, it is always a good idea to keep the budget in your own top drawer, and never allow it to be thought of as a formal harness in which the business must run. I feel that it is better to write letters about the budget.

To those men who are thrown into budgeting with very little preparation, I just have one thing to say, and that is I urge them to follow sound accounting technique in preparing the budget. At least, they cannot accuse you of making ordinary arithmetical or bookkeeping errors.

If there are any questions about any of these schedules, I will try to answer them. Thank you very much.

HERBERT J. WEBER (*Cost Accountant, Henderson Lithograph Co., Baltimore, Md.*): I should like to ask, first, in your opinion; is this budget idea applicable alike to a business making a special product to order and one making a stock article? And then just one other question. You spoke about the six-month period. Do you hold that is the ideal length of time or ideal period?

CHAIRMAN HOWELL: The answer to the first question is that the principles set forth there apply to any kind of budgeting. The methods by which you arrive at the figures you put into those schedules are decidedly different. Naturally, where you are building for stock, you have a pretty easy proposition. Where you manufacture what happens to come in today, you have a very difficult proposition.

The difference is this: In the first case you can have a relatively uniform set of expenses and costs and relationships. You can translate them into the exact number of dollars because you know what 100% is going to be. In a special business, the only thing you can have is definite flexible budgets based on ratios of varying capacities.

Then you can take any volume of product you like. The point is, you have to have some estimate even if it is only the last month's business or that of the month before. Otherwise, you cannot really stay in business. You have to know something about what is coming in. When today's orders come in, all you want to be sure of is that you do not spend more for those orders than the standards that have been set, so that the budget is really flexible for job work.

This particular budget illustrated, in addition to involving manufacture for stock, also covers a couple of foundries, 80% of whose work is job work. The manager never really knows what he is going to make until he opens the mail in the morning. So the budget is extremely flexible and we do not pay half so much attention to the total sales figure and profit and loss figure as we do to the budget of allowable expense, allowable labor, allowable material, to actual.

The answer to the second question is, "No," because you absolutely have to study each business. In some of them, of course, it would be utterly impossible to budget a six months' period. Some, particularly those with sound finances, may be able to budget a year ahead of time. I think you have heard some addresses from the platform in previous conventions where they budget the full year. The only statement I can give you on that is to again emphasize the need of saturating

yourself with budget material, saturating yourself with policies and plans of your own business so when you do decide to budget, you do not pick an impossible task for yourself.

There is no period I know of that could be set as the ideal time or period for budgeting.

MR. GRAVER: Can't we say quite definitely that the first step in preparation of a budget is a sales estimate?

CHAIRMAN HOWELL: The sales estimate is the keystone of the thing. There is no question about it, but as Mr. Smith has pointed out, budgets can be prepared for a lot of other things. That is not the point. For a complete budget you have really got to have a sales estimate as the basis. If the sales volume is too uncertain to estimate, it does not prevent you from having budgets. Assuming that your business is so variable and fluctuating that you cannot tell whether the sales will be so much more or less, the least you can do is to set up a budget for several different kinds of conditions which might happen, and leave it to the management to decide which one they are going to gamble on.

M. W. MERWIN (*Controller, The Bradley Smith Co., New Haven, Conn.*): First, I should like to ask one or two questions, and then state our case. In the light of our case, possibly you can answer the questions.

The first is, are you overemphasizing the value of the budget for a small concern? By that I mean a concern doing under \$2,000,000 or \$3,000,000 a year.

In the second place, just how far should we go, and have we made a mistake in eliminating some of it?

The story is that two years ago we installed a standard cost system in our factory which manufactures candy and peanut butter. Last year we put in a complete cost system with financial budgets and everything that goes with it, even to the key-man bonus plan.

Yesterday afternoon I attended an organization meeting of the Eastern Peanut Butter Manufacturers. At that meeting the question was asked, "How many concerns represented here have cost systems in their plants?" There were over 25% who did not have any cost system, and 50% that did not have an adequate one. That is the competition we are up against.

Also, in the candy business, we set up our financial budget for the year 1932, which was last year, and expected it to work somewhere near right. We found we got into some pretty vicious competition and I

might say probably 50%, at least, of the candy industry is not making a profit at the present time.

We had repeated calls coming from salesmen in the field that if we could furnish this product at such-and-such a price, we could get the order. In other words, we had to cut under our standard cost in order to get the order. We did it in a good many cases which, of course, put the budget off entirely, or so much that it was not really worth much. We discontinued the financial part of our budget.

In the factory the expense budget is working perfectly. We would not eliminate that under any circumstances, but the point is, until the rest of the concerns in our field get into the financial budget and budgets all the way through, we are more or less in a position where the financial budget is not going to help us.

We had a case last month where we had one large order with a profit way above what we expected because it was a novelty number, the first in the field.

Do you recommend that we keep on with the financial budget, or, do you say throw everything out and reduce office expense and keep the expense budgets, and that is all?

CHAIRMAN HOWELL: Mr. Smith, you had better handle some of this. That is a long question.

I will tell you what I would do, first of all. I would take all budgets out. If the accounting department was being complained about by the management, I would do the budgeting after office hours. I would not do away with them. In fact, a great deal of budgeting work has to be done unofficially, particularly when you are starting. There is no question about it. Furthermore, you should not take the company's time while you are fiddling around, learning how to budget.

It seems to me there is a question of policy involved first, and that is whether you are in business to sell candy at any price, or are in business to make a profit. If you are in business to sell candy to anybody who comes along and wants it, at his price, I would say, "Certainly, throw the budgets out, but be sure you have a darned good bank balance."

Your condition is not different from the contracting business which is torn to pieces. In it is the worst kind of competition, with the bulk of the going work under the low-bid system going to the worst swindlers in the business. They have no cost system nor anything like it. They depend on the bonding companies to finish the job.

A good, sound company is going to budget. They are going to

know that they are better off to leave the money in the bank, than, let us say, to use it donating post offices to the Government. Let somebody else do that.

It seems to me there is essentially a question of policy involved. If you feel the standard cost at the certain capacity that you are entitled to is sound and right, then whether or not you take any more business has nothing to do with the man doing budgeting. Set the facts in front of the management.

Whether to throw the financial budget away depends on whether you want to know ahead of time where you are going, or whether you just want to wait until something hits you and take it suddenly and without forewarning. I think that under the conditions such as you named, that is where the budget is the most valuable.

Yours is a very pertinent question, very pointed. I think I should like to have a discussion from the floor. Mr. Castenholz looks ready to say something.

MR. CASTENHOLZ: No, not on this particular point, Mr. Chairman. I will surrender that privilege to someone else.

MR. MASON SMITH: It seems to me this is primarily a problem of sales research. We try to find out what we are going to sell, to whom we are going to sell it, how we are going to reach our customers, and at what price.

You are making peanut butter and candy. If the industry is so shot full of unfair, cutthroat competition as you indicate, it seems to me you cannot help but get so deeply into that when you budget your sales you will have to make up your mind in advance rather than after the wind hits you and wrecks the ship, whether you are going to take that business at all or whether you are going to try to retire from the profitless part of it. Perhaps there is some other more profitable line that can be developed. Adequate sales analysis and study would bring you to approximately the same condition in your planning as you will be in your actual situation, anyway.

Whether or not these financial budgets ought to be thrown out, I think Mr. Howell covered that adequately. It seems to me it is dangerous to retreat. You must feel you are right or you never would have started. I should say one of the very great opportunities that exists for you is to get hold of such companies in this line of business as there are who feel somewhat the same way you do and see if you cannot carry on some educational campaign. If the Industrial Recovery Act operates as it should you will have help in this teaching.

MR. MORRIS KNAPP: We use two budgets. We have a flexible budget which is developed rapidly, and we have the company budget used for administrative purposes. By working the two together, no matter how the economic conditions vary, you can bring out the why, not only for factory operation. For actual application, it works out in tabular form. We do not use graphs for working it out.

In our experience, for judging the result, we usually pay more attention to the time up to date than to the period we are working on. We cannot budget in a small company, especially with diversified products. So one period will show up total to date with a controlling figure.

CHAIRMAN HOWELL: Thank you very much. That should bring some light on the question asked by the gentleman regarding that business which is hard to budget due to inability to estimate sales. If you have that flexible budget idea, it is a great help.

I now recall a very clever application of that in Mr. Kleinschmidt's paper published in our N. A. C. A. Bulletin. He is in the contracting business, as we happen to be, and it is utterly impossible to know what contracts are going to be closed this month, even though you may have a list of prospects right in front of you that you know will close eventually. You do not know just in which month.

Mr. Kleinschmidt worked out a method by which the flexible budget is built on a cumulative twelve-months' total. It carries forward the twelve-months' total. That possibly is not the solution of every problem, but I just want to point out that with a little ingenuity some basis can be worked out that will give a little advance information instead of waiting, as Mason Smith points out, until the wind hits you and drives you on the rocks.

BERNARD J. RAEHER (*Office Manager and Statistician, Label Manufacturers National Association, New York, N. Y.*): I am connected with the printing and lithographing industries. We have the problem of budgeting and we have been doing budgeting for the last twelve years, both for individual companies and for the Association as a whole. Printing and lithographing is nothing but contract work. We establish our conversion costs on normal operating activity and normal use of the equipment, notwithstanding that we may only operate on 40 or 50% activity.

However, we feel we cannot force the customers to pay for the inactivity of our equipment and the mistakes made by management in overequipping their factories. In order to establish a measuring stick

of our profit possibilities, we have to adopt a formula for establishing a normal price, or normal value for the work.

Lately we have been following Mr. Churchill's idea. We have established our direct manufacturing cost for each department and by doubling the costs we arrive at normal values for services rendered by the various departments. By establishing our budget at 80% activity and including that sales value and analyzing our costs as to constant and variable costs, we are able to establish normal for any operating activity against which we compare our actual results.

I had one instance, for example, where it was shown that the company operated at 34% activity. The normal break-even point would be about 33%, because the overhead was rather small compared with some other companies. Therefore, they were below the average break-even point for the industry. Their sales value was only 74% of normal sales value, and, therefore, they lost all advantages and their actual break-even point was over 50% of capacity, and they showed a loss.

CHAIRMAN HOWELL: Thank you, very much. That is a very clear illustration of what can be done and has been done. It also again brings out the fact that there is some real talent in the N. A. C. A. I forgot to mention when we first began to get into budgeting and marketing research we found our N. A. C. A. friends were all very courteous and helpful. I would write a letter to some of the members saying, "What are you doing about this, that and the other?"

They have always replied fully, completely, and courteously. I have had occasion once in a while to reciprocate. It is a substantial benefit of membership in the N. A. C. A. I do not know whether that is a sort of warning that perhaps I am going to write this gentleman pretty soon; but it is something of real value in this Association and it is worth mentioning.

MR. CASTENHOLZ: May I revert to the subject that I talked about early in the session? In the early part of your paper, Mr. Smith, you stressed the danger of limiting budgetary control installation to a small section of the business and ending it there. It was in connection with that very idea that I came to the conclusion that that most important increment in business, namely, the net profit, should be the starting point. I do not mean to say in a budgetary process for a particular year we can always budget a net profit. It may be that under certain economic conditions we may have to budget a net loss.

However, starting from that point, knowing that the net profit is the most important increment of the sales dollar, and that the sales dollar recovers for us all expenses and costs which are, in turn, the measurement of all functions of business, management is necessarily directed to the control of all the functions that form these other increments of the sales dollar. That will interest management in the complete budget.

That is the idea I had in mind in projecting the thought of starting with the net profit. Please bear in mind that my mind and my budgets are flexible, to take care of economic conditions which are bound, of course, to interrupt and change any of the early calculations.

In connection with that same topic, Mr. Smith thought starting with a net return on a normal investment might be dangerous if other concerns got the same idea. I believe if other concerns got the same idea, the entire industry would be put on a much saner basis than if they were merely wild, cutthroat competitors working on no basis at all.

CHAIRMAN HOWELL: I think that is "right down my alley," Mr. Castenholz. That is going to be more important because while most of us might like to experiment with a lot of little budgets, I think the emergency that has existed and is going to exist is going to require a complete budget.

One other point. If you are trying to put budgeting over, you cannot expect to go to the President and General Manager of your company and say, "I have a budget on this little bit of a department on oil and waste," or some other thing and have him much enthused. He will say, "Fine," and not bother.

If you can say, "We are going to lose half a million dollars next year and it is going to knock our cash down so that we will have to borrow \$300,000," he will get excited right off the bat. Then, perhaps, you will get his authority to go down and work some of these detail budgets through the shop and in the field where you might have some real difficulty. There is a big item in budgeting that you can sell, and you cannot start out by selling a couple of bolts if you want to sell the automobile.

I think the importance of complete tied-in budgets has not been sufficiently emphasized. I feel also that the technique should be thoroughly understood. I do not know whether other people have worked out a complete, coordinated budget merely by adding the schedules together in some way, without any formal method.

If so, and if anybody has any other ideas of working it out or feels that this method is a little too much of a bookkeeping way of doing it, those are the fellows we would like to hear from.

A. R. DAVIS (*Controller, American Hide and Leather Co., Boston, Mass.*): I believe we are considering the small business and their beginnings in budgetary control. I am wondering if, before they start with what you have outlined here, it is not practical that they should make a very thorough appraisal of their equipment and actual capacities, and in connection with that an estimate of their irreducible fixed charges, and in that possibly arrive at, not a budget of sales, but a standard of sales which they must meet if they are to stay in business. Also, I wonder whether they should make an appraisal of what they as a concern with their equipment and organization can do the best, and then start with the accounting and strictly technical budget.

CHAIRMAN HOWELL: The question of with which end to start first depends on conditions. I feel when you are dealing with functions of that type in a scattered manner you lose the coherency of the whole thing. If you can start in with a budget of conditions as they exist today and it shows a net profit or net loss of so much, then you start and say, "Well, prices are low. Why are prices low? What is our capacity? We are running at 100% capacity. Where are we selling that stuff? We are selling it in this territory or that. Who is the competitor there? Why do we take such a loss there? Is that the fellow's home town and are we raiding his territory? How much in sales can we do profitably, and what areas can we cover profitably? What will it mean to our capacity? What will be our losses in manufacturing? Will it be cheaper for us to say we made a mistake when we built that addition on there? Shall we close it up and forget it?"

I think there has been too much money spent, too much building of factories and flooding the country with stuff for which there was not a market, and which was not properly sold. However, the method of tackling all these problems of management differs in every concern. I have found that the approach through the last few years, anyway, when finances are so important, through financial control from the budget and down into the details, is one that gets you to the head of the house instantly, and if you get him sold on the first part, you get support on the second. On the other hand if you tackle each item with the men down the line and build up resistance, by the time you get to the top they are probably not ready to listen to you.

MR. TUCKER: To what extent do you advocate obtaining budget data from the heads of the various operating and service departments and in turn, to what extent do you actually use such data?

CHAIRMAN HOWELL: I think if I were making up a budget in a hurry and had a well-organized accounting and statistical department and had the cooperation of the executives at the head, I would make up budgets without going into much detail with those fellows to begin with.

As I pointed out, the real advantage of the budget is its educational value and I would call for budgets from every department head, and make them send them in and think about them. Whether or not you use them is another matter. If you are responsible for the budget and for stating the financial condition, I certainly would not take the word of somebody who does not know, has not the facilities to know, and would throw my whole budget out. I would use a corrected figure.

I notice in a good many sessions that there is an attempt to establish an absolute formal way of dealing with executives in budget matters. When you come to figures, they should be handled formally according to an accounting technique. That is what this paper is all about, but when you come to human beings, that is an entirely different matter and I feel that the man in charge of the budget should have intimate contact with every single person who has anything to do about it at all, and know each man pretty thoroughly, and talk to him and build a budget up from talk. If he is a fellow who likes to write letters, let him write. If he thinks he is a darn good budgeter, give him a lot of forms and let him shoot.

I do not believe in patchwork budgets made up by the best guesses of forty-seven people. I much prefer to have one man's guess, even though it is wrong.

E. LA ROSE (*Assistant Controller, Bausch and Lomb Optical Co., Rochester, N. Y.*): I want to say a few things about this budget. I think a great many concerns have absolutely gone wrong by starting from profit. If we had general business conditions at a level the past five years or ten or fifteen years, you could start from profit. With general business conditions going the way they have, I think the only way to start is with an accurate sales forecast. Then get as much profit as you possibly can.

So many concerns have said, "We are going to make \$500,000. That is 10%. Our sales will be \$5,000,000." Then they only sell

\$3,000,000. It will catch you on inventory, on expense, on cash, on everything in your budget if you start with profit. You cannot do it until the country adjusts itself, until we have a general level of business.

I think the greatest step in budgeting in the last few years has been the complete study of the deviation of every product the concern sells with business conditions. The General Electric Company, for example, has set the 1933 budget, giving due consideration to the effect that business conditions have on each product. Electric bulbs may be down 10% as a necessity. Flatirons may be down 20%. You come to refrigerators, and they are down 40%. Oil burners may be down 50%. So, it has a definite effect on each product and we have to deal with sales forecasts.

The next thing you mentioned is that you did not think the budget has any effect on employment. I believe it will, that it will stabilize employment, that it will give steady employment to workers, eliminate high turnover, and high costs as a result of high turnover. It will give you better quality. I cannot help but feel when you say that it would be a good thing to keep the budget in your desk, that you are wrong. A pilot certainly has to have all his instruments in front of him, his tachometer, oil gauge and gas gauge. He cannot fly by guesswork.

I think the more you keep the budget in front of everybody, and show them where you are over and under, the better chances you are going to have.

Charlie James has been sitting next to me. I told him that we have adopted his suggested form of statement, made a few changes and it was one of the finest things I had seen in industry today. I worked with it the first five months of this year. Some of you people know what it is. You can pick up variances with your budget, so now I would say more than ever before, with the use of this statement it is necessary to correct budgeting and have adjusting budgets.

I think the budget ought to stay for three months, six months or a year. A year is the best you can get. In our case, we are thinking ahead five years.

There are men who have stacks of records and do not know where they are going in budgeting because they are trying to change every month. Here is a budget of 60% volume, another of 70%, another of 80%. They shoot the schedule out each week, and the concern does not know where it is going. I think you can take care of it by letting the budget stand. Simply show the company that due to variances in volume, this is an amount that you should cut or spend. That is all

that is necessary. Then you can go back to February or March or April or any month of the year and show where they made mistakes.

I agree that it is an education right down to the sweeper. I think you can apply your incentives all through, especially on the expense items of your budget. I have not heard it discussed, but I think probably the newest thing is the standard selling expense with over and under absorbed selling expense, similar to your factory overhead. That will work in this new style very well. It eliminates a lot of figuring and I think with the new recovery bill, that is one of the things we have to face, standard selling expense, so that people will not try to get business today at 50% expense due to abnormal conditions, when under normal conditions it is only 25%. You have to have over and under absorbed selling expense.

I do think you must have these reports in front of your people continually or you will never make the goals you set up.

CHAIRMAN HOWELL: We are always glad to hear from Mr. La Rose. He is an authority on budgeting. Some of the best work on budgeting has been done under his direction, I believe. One of the good principles of budgeting, particularly when you are discussing disputable points, is to agree to agree on as much as you can, and then agree to disagree.

I will agree right off the bat that the budget should stay put. I think that is fine.

On standard selling expense I can remember a very hot session in Detroit, hot weather and a hot session, when, I think, Mr. Castenholz brought up the matter of standard selling expense. That has been developed to a considerable extent, and it is going to be as helpful in budgeting, in the matter of setting standards for sales by products and customers and salesmen, as similar standards have been in manufacturing.

As far as the employment in industry is concerned, I can only speak for the few I know of, and I do know this: Any one unit of that industry will be utterly helpless in solving unemployment in particular lines in which I am interested. If there are some groups where the competition or the number involved is not so great, possibly something can be done. I think budgeting for an industry or for big groups of industry, which is practically the purpose back of this new Act, will be of help.

I do not want the audience to get the wrong impression on the budgeting of net profit. The idea expressed in stating that great mistakes

have been made by budgeting a net profit of so much, \$500,000, follows the reasoning which I have deprecated throughout this paper, that is, the belief that a budget is some ideal we would like to have, rather than an estimate of what we are likely to get.

All we say, and I think Mr. Castenholz agrees, is that when you do go to the bother of doing this work, follow it to the end until you see what net profit is. Do not set it and say it has to be so much; but see what it is by working your schedules through to the end, allowing all logical things to work out, allowing refrigerators to fall off 40% and oil burners 50%, and something else, but get to the final figure—the anticipated net profit.

Do not stop with a sales budget or expense budget. Have all those things go to the one vital figure. That is, what is net profit going to be if all these things happen? So many budgets stop before they get to that point. That is the point I, and Mr. Castenholz, if I may speak for him, had in mind, rather than saying that as a starting point for the budget we are obliged to make \$1,000,000. At least, that is not the idea I had in mind.

Just one other thing. In Rhode Island we fiddle around with a lot of boats. The navigator has a nice big compass in front of him and a rack of beautifully printed charts and if any of the passengers or the crew or deckhands come up and fiddle with that compass, or monkey with the charts there is the deuce to pay. So I feel the budget is the compass, and I would just as soon keep it and not have too many people adjusting it for me.

There is time for one question, if it is important. If not, we will stand adjourned.

. . . The meeting adjourned at twelve o'clock. . . .

[EDITOR'S NOTE—The material, including the charts, prepared and presented by Mr. Howell before our Fourteenth International Cost Conference also appears in "Economics of Marketing" by Professor H. B. Killough, published in 1933 by Harper & Bros., 49 East 33d St., New York, N. Y. It is reproduced here through the kind permission of Professor Killough and the publishers.]

SESSION VI

STANDARDS AND THEIR APPLICATION TO DISTRIBUTION PROBLEMS

THURSDAY AFTERNOON, JUNE 15, 1933

HARRY E. HOWELL, *Chairman*

T. M. McNIECE was trained as an electrical engineer in the Case School of Applied Science at Cleveland, Ohio, and received the degree of Electrical Engineer from that institution. Following several years in manufacturing, engineering and sales activities with organizations manufacturing pumps and plumbing goods, he became interested in production work on a variety of carbon products. Work along the lines of cost analysis and other analytical lines led him to the position of Head of Plant Accounting Division of the Union Carbide and Carbon Corporation, which position he held for a number of years. With the growth in interests in Selling Costs, his Company selected him to head the Sales Records and Research Division of the National Carbon Company, Inc. In the course of his analytical work for the latter corporation, he has also devoted considerable time to security analysis. Since leaving the Union Carbide and Carbon Corporation, he has been working intensively on a study of the nature and characteristics of economic surges from a causative and corrective point of view. This is directly concerned with an investigation of the dominant industries of the country and the factors which influence their individual behavior.

C. HOWARD KNAPP was graduated from the Melrose, Massachusetts, High School in 1904 and for the next five years was employed by various manufacturers of loose-leaf system supplies. In March, 1909, he joined the Special Service Department of the Library Bureau and later became a partner in Cutter, Fletcher & Company, public accountants. In 1912, he left the public accounting field and became Accountant for Waitt & Bond, Inc., which organization he served until 1916 when he went with the Bassick Company, of Bridgeport, Connecticut. In the early part of 1918, he returned to Waitt & Bond, Inc., as Secretary, and in July, 1929, was made Treasurer and Director in Charge of Finance, in addition to his secretarial duties. At the present time he is Vice President and Controller of Waitt & Bond, Inc., Congress Cigar Company, and Porto Rican American Tobacco Company, Newark, N. J. Mr. Knapp was elected first Vice President of the Newark Chapter when it was organized in 1929, was reelected for the year 1929-30, and served as President for 1930-31.

STANDARDS AND THEIR APPLICATION TO DISTRIBUTION PROBLEMS

PRESIDENT BULLIS: We now come to the final session of this splendid Fourteenth International Cost Conference. May I at this moment express the sincere appreciation of the officers and directors of the Association, to all those who have in any way assisted in carrying out the program this week.

I would mention especially the committee in charge of the technical sessions under the leadership of Harry D. Anderson and the New York Committee, headed by General Chairman, William R. Donaldson, whose many members have untiringly and successfully carried on all of the great amount of work which is so necessary at such a large meeting.

I have attended N. A. C. A. Conferences for many years, but I have never attended a national meeting which was so pleasant, and where so much was done by the members of the local chapter to make the meeting a happy one for the visitors. We have all had a splendid time.

During this sixth and final technical session we are to hear about the problems of establishing and applying standards in small business enterprises. Once more I turn the chair over to Harry Howell, who will take charge of this meeting.

CHAIRMAN HOWELL: Ladies and Gentlemen: Following yesterday's memorable session on the problems brought about by the new National Industrial Recovery Act we had a session this morning on the subject of budgeting, and this afternoon we are to discuss an allied subject. The topic is a broad one covering the establishment of standards and the application of these standards to distribution. We talked this morning of the great help which standards give in budgeting, and described how they are already, as we know, in effect in manufacturing operations. The extent to which they have been applied through selling and distribution costs is not as great, nor are the problems as thoroughly understood. We, therefore, felt that this topic fitted in with the whole scheme. The first section will deal with the problems of the development of standards for small businesses selling to producers.

The gentleman who will talk to us was trained as an electrical engineer in the Case School of Applied Science in Cleveland, and received the degree of Electrical Engineer from that institution. Then he engaged for several years in manufacturing, engineering and sales, in organizations manufacturing pumps and plumbing goods.

He became interested in production work on a variety of carbon products. For a while he was head of the Plant Accounting Division of the Union Carbide and Carbon Corporation. He is well known to N. A. C. A. members. With the growth of interest in selling cost, his company selected him to head the Sales Records and Research Division of the National Carbon Company, Inc. In the course of his analytical work for the latter corporation, he also devoted considerable time to security analysis.

Since leaving the Union Carbon and Carbide Corporation, he has been working intensively on the study of the nature and characteristics of economic surges. This is directly concerned with an investigation of the dominant industries of the country and the factors which influence their individual behavior.

You will recall we had this morning a great many questions from the floor on the problems of particular businesses, especially as regards the fluctuation in the sale of certain products.

This paper will give a broad background describing some of the causative phenomena back of the results we finally show. I think it will be most helpful in giving you that additional background we talked of this morning in which you should thoroughly saturate yourselves before being too ambitious in budgeting work.

Without further preamble, it is a pleasure to introduce Mr. T. M. McNiece.

PROBLEMS IN THE DEVELOPMENT OF STANDARDS FOR A SMALL BUSINESS SELLING TO PRODUCERS

THOMAS M. MCNIECE

Market Analyst

New York, N. Y.

WHEN the paper prepared for the meeting here this afternoon was written, I had absolutely no idea that the discussion which we held here yesterday afternoon was to occur. However, in view of the treatment in this discussion scheduled for this afternoon, and

its application to the problems outlined yesterday, I expect to adhere rather closely to manuscript.

The instant favor that is being manifested by various manufacturing industries toward the new Industrial Recovery Act reminds me a bit of the dash of a bass for a barbed hook. What attracts it is a glittering gadget and some red feathers. The glittering gadget in this case is the opportunity for price agreement, and the red feathers are the hopes that it will work.

With that in mind, we expect to cover the discussion as originally planned.

The determination of performance standards in the field of selling and distribution requires the coordinated consideration of three basic problems. These are the cost of selling and distribution, the volume of sales to be attained and the price levels at which such sales can be consummated. These essential factors remain the same whether the business be large or small. Fundamental as these elements are, their practical application requires a receptive management. Management may be classified into two types—casual and reflective. Both are essential in well balanced organizations. Casual management may be defined as that whose time is occupied chiefly with the random problems of the day. Reflective management is composed of those executives whose intelligent evaluation of the facts of business determines the course to be followed for the long pull. The former may be considered as the pilots and the latter as the navigators of business.

Casual management is but slightly interested in problems of standards. It includes those who give major consideration to volume of sales and merely incidental attention to profit to be derived from sales. In discussing this situation a short time ago, a well-known executive of one of the largest organizations in the world gave it as his opinion that "casual management is the cancer eating at the vitals of American business today." It may then be suggested that the successful application of standards of performance in the field of selling and distribution presupposes and requires certain standards in mental habits of management. Merely to assume the existence of such standards is to expect too much and to court failure.

While it may be trite, we may restate the ultimate objective of business as the attainment of a reasonable profit. For any given cost of production this requires such a combination of the cost of selling, price level and attainable volume that a reasonable profit on investment will be derived. The problem is made difficult by the

fact that the *three* elements mentioned are all variables. To assume any one of them as a constant is to introduce a fallacy that may wreck the plan.

The development of such a program does not mean the pursuit of all the volume we can get at the sacrifice of unit profit. To follow such a plan may result in creating such a relatively high investment in equipment and organization that it will fall of its own weight when enforced losses in volume are sustained as in times of economic depression. To reverse this plan and to maintain unduly high unit margins of profit is to encourage the early entrance of competition. The ultimate effect of this is the destruction of profit through the uncontrolled reduction of price levels.

Stability is an attribute of earnings whose desirability is intensified by present conditions. Major economic movements enforce restrictions on volume and price that cannot be controlled by managerial action or legislative enactment. Recognition of these movements may permit agile management to improve stability of earnings by proper corrective action within their companies. These conditions are all vitally related to control by proper standards.

While this association is primarily interested in the problems of cost determination and control, effective action demands such a close study of the elements of cost, volume and price that one cannot be logically considered to the exclusion of the other two. With the thought that this group is already much more familiar with the characteristics of cost, it is planned to devote relatively little time to this phase of the problem and more to the related aspects of volume and price. These must all be accounted for. Since the function of accounting is to display the facts of the business in useful form, it follows that the underlying factors in all of these elements should be understood.

Cost of Selling and Distribution

Logic demands that we know not only how much we spend in our selling effort but where and upon what we spend it and how much we get for it. This means we should measure the cost of our effort not only by classified activities but also by products and by territories. At this point many will rise to suggest that it is impossible to determine all such facts. It is true that many of the activities in selling and distribution cannot be as accurately measured as those of production. This is no reason why we should not determine as many of the facts as we reasonably can.

The first step is the adoption of a schedule of accounts that will clearly recognize the natural divisions of labor or effort with attendant expense, not only in the office, but in the field. The next step is to determine for as many of these functions as possible, those activities which can be quantitatively measured and which govern to a large extent the amount of money expended on the function. Such, for example, would be the number of orders handled monthly by the order and billing department for each product. After as many bases of measurement reasonably possible have been determined, residual expenditures will be found for which no direct quantitative measurement exists. An example of this is administrative expense. In these cases some combination of or the aggregate of all prior methods may be used for allocation purposes.

The next step is to devise an allocation sheet based upon these bases that are applicable to both products and territories. Where the product list is extensive, the only practicable allocation may be by classes of products rather than by individual products. Where widely different costs are encountered in various customer industries it may be advisable to segregate costs by classes of industry or trade. There is no real utility in these results unless they are to be used in planning the strategy of the business. They are essential in setting up any standards by which to measure results. They are the very essence of budgetary control.

In view of the desire to consider the problems of volume and price more thoroughly no detailed discussion will be offered on this part of the problem. No real standards of performance can be compiled in aggregate terms only. Conditions affecting costs differ so radically among products, territories and sometimes classes of trade, that these elements must be recognized in any real effort to measure performance.

Volume of Sales

There are three questions most intimately connected with any consideration of sales volume. Intelligent direction of sales effort from the profit viewpoint requires an answer to each of them. These questions are, "How much?" "Where?" and "When?"

How much demand will be encountered largely governs the investment in plant and inventories and the amount of activity in the marketing field.

Where this market exists influences the location of factories, warehouses and sales forces as well as affects sales policies and strategy.

When the demand may be encountered requires a threefold answer. The first is concerned with the seasonal trend. It not only measures the monthly variation in annual load, but, in the case of a highly variable seasonal trend, exerts a tremendous influence on manufacturing capacity and invested capital. The second answer to this question is concerned with the long-time or secular trend and the location of the specific company on that trend. The third answer measures the relative stability or instability of customers' demand as affected by the world's economic surges. For example, the automobile industry characteristically fluctuates through much greater ranges than staple foods.

All of these questions will be considered in turn. It may first be suggested that in measuring any industrial or producer market, we keep in mind that the ultimate objective of all productive effort is the satisfaction of consumer needs. There is no form of producer goods or materials that is not destined to play its part in meeting individual requirements. That is the only purpose for which it is needed. It is always in order, therefore, to consider the market for producer goods in terms of their relationship to the consumer. The demand for producer materials and equipment may be very quickly modified by a shift in consumer demand for commodities whose production requires those producer goods. For the long pull, therefore, any one catering to the producer market should interpret that market in terms of stability of consumer requirements.

Many manufacturers sell to more than one industry. It will therefore greatly help to determine as nearly as feasible the usage by each customer industry. This estimate, where possible, should be of two types: (1) The potential market or total demand from that industry and (2) the share of that market that can reasonably be expected by the individual manufacturer. Potential demand is not easily estimated and relatively few statistics are available that will furnish the information directly. Often a useful estimate may be made by indirect methods. The Department of Commerce for a number of years past has worked intensively to assist manufacturers in locating and evaluating markets in both industrial and consumer fields. Among the data published are the following pertaining to industrial markets. The information listed is furnished by counties for the United States:—

- (1) Number of Manufacturing Establishments
- (2) Number of Wage Earners in Manufacturing Establishments
- (3) Wages Paid in Manufacturing Establishments

- (4) Cost of Materials, Containers, Fuel and Electric Energy Purchased in Manufacturing Establishments
- (5) Value of Manufactured Products
- (6) Value Added by Manufacture
- (7) Rated Capacity of Power Equipment.

These data apply to the year 1929. If usage based upon any one or more of these factors is known, total demand may be quite easily approximated and located. Trade association data may be utilized in many cases. The Department of Commerce is in possession of much unpublished information on specific industries and may often give valuable assistance in measuring the requirements for many commodities. Trade papers also possess many facts bearing upon output and usage in their industries. There can be no general rule or universal formula applied to all cases. Each is a problem in itself, to be solved by whatever means are available.

The proportion of existing business that may be secured by any one company can best be gauged by the experience of the past modified by a knowledge of near future conditions and policies. It is not sufficient for the long pull to know merely whether one's own business is increasing or decreasing. It is quite essential for ultimate success to know whether one is gaining, losing or just maintaining his own position in the battle for sales. The successive ratios of actual and estimated sales to total available in the industry will tell the story. There is probably no industry where more stress is placed upon this factor than in the automobile business. Arbitrary and groundless estimates of changes in volume from year to year, while easy to make, may be hard to meet and much money may be wasted in the effort.

It is most important to know where the market exists. This is especially true in industrial marketing where concentration is very great. Location of market influences placement of factories and sales forces and largely determines territorial boundaries. A thorough knowledge of this factor is most essential in selective selling. It is an aid to effective economy in selling and distribution and is very necessary in comparing performance of different divisions of the organization. Some idea of the necessity for planned concentration of effort may be gained from the studies by the Department of Commerce previously mentioned. There are 3,073 counties in the United States. Of the seven factors covered by the census data, 75% in number or value are included in the following number and percentage of counties:

	<i>No. Counties</i>	<i>Per Cent</i>
75 Per Cent of Manufacturing establishments	393	12.8
" " " " Wage earners in manufactures	209	6.8
" " " " Wages paid in manufactures	145	4.7
" " " " Cost of materials, power, etc.	150	4.9
" " " " Value of manufactured product	138	4.5
" " " " Value added by manufacture	137	4.5
" " " " Rated capacity of power equipment	341	11.1

This great concentration of industry should suggest at once the need for close location of the market in order that effort may be placed where it will yield a profit. The location of competitive plants and warehouses and the strength of competitive effort should be considered in this connection. Where data by counties are available and useful for the purpose, counties may be combined in whatever territorial units are desired and demand estimated by these geographical divisions. Naturally, where buying is centralized at points remote from use, this condition must be taken into consideration.

The question as to when demand will arise for any commodity involves not only seasonal and secular trends but also the surging characteristics so important in our economic disturbances. The measurement of seasonal changes involves little trouble and most industries are familiar with such changes as a result of past experience. Unless influenced by unusual factors, seasonal changes are quite firmly established. The more highly seasonal the demand for any commodity, the larger proportionately is the investment required for any given annual volume. In order to meet peak demands, excess investment must be made, either in productive equipment or in inventories. Where industries, such as food packing, are handling perishable products, their requirements will vary greatly through the year in accordance with their own activities. These fluctuations in sales must be recognized in the estimates if accurate measures of monthly performance are to be provided.

The secular or annual trend of industry is not as commonly understood as it should be. There is a thoroughly normal characteristic of growth for any industry. Time will not permit a technical discussion as to why this is so. It will be sufficient to illustrate this trend graphically as on Figure 1. The secular growth of any industry or of any company in an industry is measured by its annual sales. If years be indicated horizontally and volume vertically, sales from year to year will normally follow a trend like that of Graph A. From a small initial volume, sales will gradually increase

at a greater and greater rate marked by the increasing steepness of the graph. As the market finally becomes more nearly saturated, the rate of increase will begin to slacken and ultimately, for a product in continuing use, will gain only as the population increases. If at any time usage of the product declines, the direction will turn downward and will usually reverse the trend of growth; that is, the over-all trend will be somewhat symmetrical and be more or less bell shaped.

It may be pointed out that industries vary in their location upon this normal growth curve. For example, the textile industry is

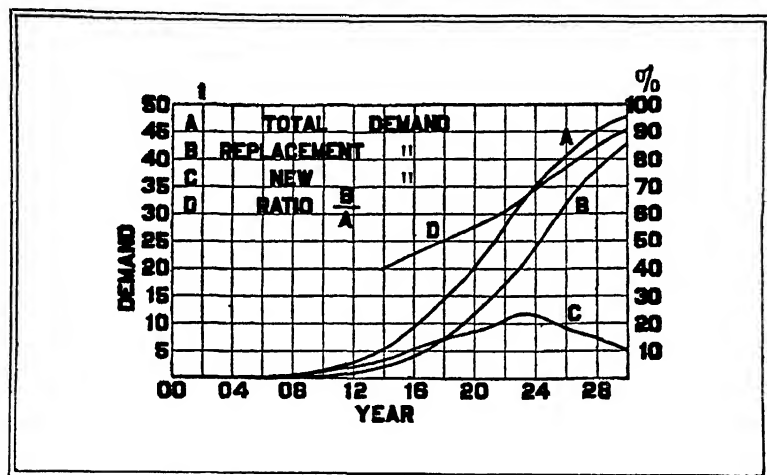


FIGURE 1

long established and its principal demand is replacement. Its present position is far up on the trend where no great increase from year to year can be expected. The automobile industry is rapidly approaching this stage as far as the United States is concerned. The electric refrigerator industry is relatively low on this growth trend, while air conditioning for homes is just getting under way.

The practical importance of this conception is that a knowledge of the position and possibilities of any industry and company on this characteristic curve should materially assist in preventing those wild estimates that arise in optimism and end in failure. A better knowledge of this growth characteristic may also furnish some guidance as to when to go into and when to stay out of some new manufacturing venture. It should assist any vendor in planning his investment for and sales to any industry.

In view of present industrial and trade conditions, the fluctuations in volume between good and bad times assume much greater importance than would have been admitted four or five years ago. Few will now be found who will not admit this timing of demand to be important. In fact, it is the desire for information on this important factor that creates the insistent but unsatisfied demand for reliable forecasting.

It seems to be generally assumed that our industries move more or less together; that is, they follow the same approximate path. In order to illustrate the fallacy of this thought Figure 2 is submitted. This shows the simultaneous productive activity in the food, textile, building and automotive industries. These movements are free of seasonal influences. Therefore, all of the variations you see are those which come under the caption of economic surges. You will notice that the textile industry is following a different course from that of the food industry. You will notice certain regularity, and, secondly, a much wider deviation from the average than in the case of foods.

The building industry at the present moment is extremely low. The automotive industry is following widely fluctuating variations which in point of time have manifested a three-year periodicity. No two of them even remotely resemble each other and none of them follows the path recognized as that of general business. The acquisition of food, clothing and shelter includes the predominant activities of man. All other effort is subordinate to these. Nearly 70% of consumer income in the United States is spent for these fundamental requirements. Consumer income pays the entire cost of all industry, including producer's income. Depletion, depreciation and obsolescence charges normally transfer full cost to the ultimate consumer.

It may be accepted that industry purchases its requirements very nearly as it needs them. It is not buying and storing material while suffering with declining sales. It should then be clear, that any manufacturer selling to any one of the four industries shown on Figure 2 will find his sales fluctuating very closely with the path described by that industry. If any manufacturer should, perchance, sell in balanced proportions to all of these four industries, he would find that his sales trend followed the index of general business, for that is exactly what the combination of these four highly variable trends produces. It is, therefore, important that he know not only what industries he serves, and in what volume, but also what the characteristic activities of those customers are.

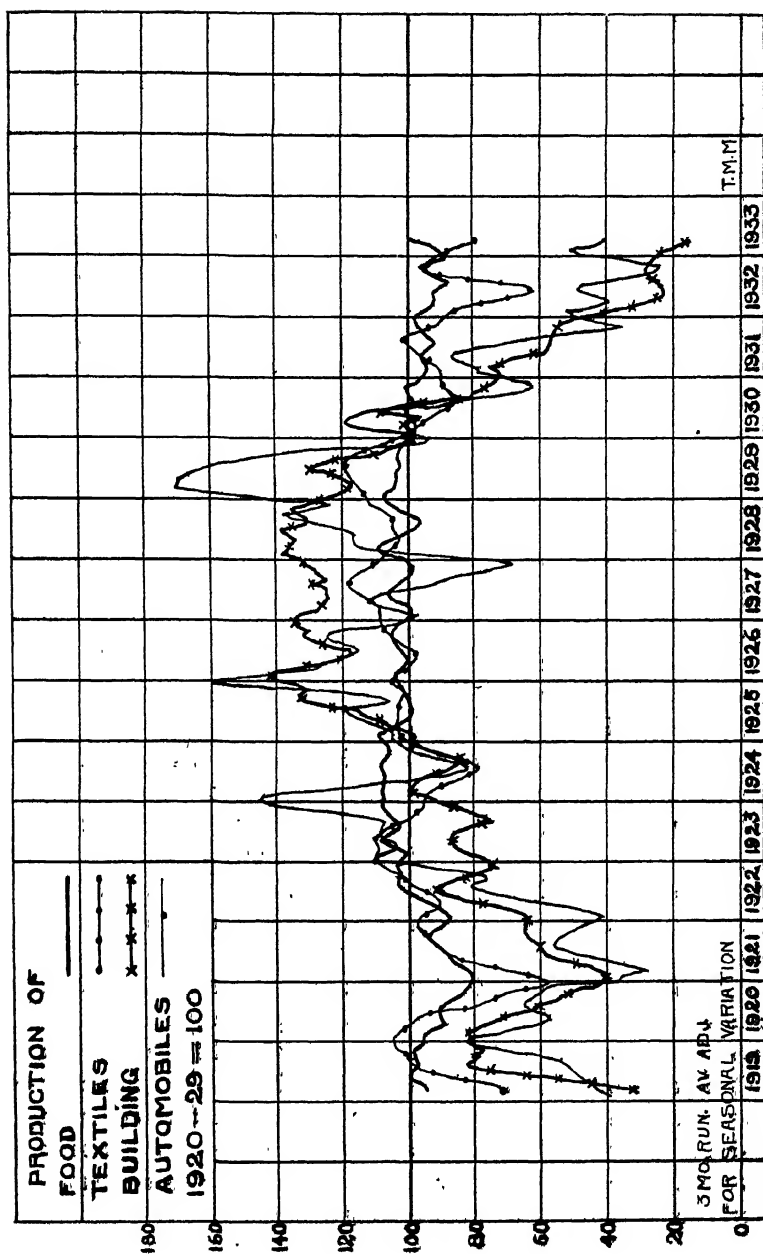


FIGURE 2

That agreement between the composite of these four industries and any accepted index of general business is illustrated on Figure 3. We have here the index of manufacturing activity as compiled by the Federal Reserve Board. It embraces a very complete cross section of all basic industries in the country, including 14 or 15 major classifications in the census of manufactures, among them iron and steel, chemicals and oils, paper, ceramic products, leather, and transportation equipment, including all railroad equipment. The light black line is the weighted summation of these four consumer industries, the courses of which are charted in Figure 2.

As previously suggested, the ultimate objective of all producer enterprise is the satisfaction of the needs of the ultimate consumer. The iron and steel industry sells materials to machine tool builders who in turn sell equipment to automobile manufacturers. The latter in turn sell their product to consumers. The automobile manufacturer buys neither steel nor machine tools when he is not selling cars to consumers. The machine tool maker buys iron and steel for use, not for inventories; and the fluctuations in demand for automobiles are transferred quickly to the machine tool builder and thence to the iron and steel industry. At once, any manufacturer supplying the steel industry feels the impact of the decline in demand for automobiles. The time lag in these days of quick inventory turnover is very slight.

Thus, each of these dominant consumer industries acts as a pilot or pacemaker for a long chain of other industries that serve it. Any manufacturer serving one of these industries exclusively will find his sales following the pattern set by that industry's sales. Any manufacturer serving an industry which predominantly serves one of these will follow a similar trend. Any manufacturer who serves two or more will follow a path that is a composite of the individual trends.

It is of more than passing importance that the combination of these four widely differing but tremendously important industries faithfully duplicates the trend in all its twists and turns of general business as shown by any of the accepted indexes of business activity. It should then be apparent that a manufacturer serving other industries should be familiar with the habits of his customer industries if he is not to steer blindly in a fog. It is not enough merely to measure the trend of aggregate business.

At this point, in view of yesterday's discussion, I should like to introduce another chart.

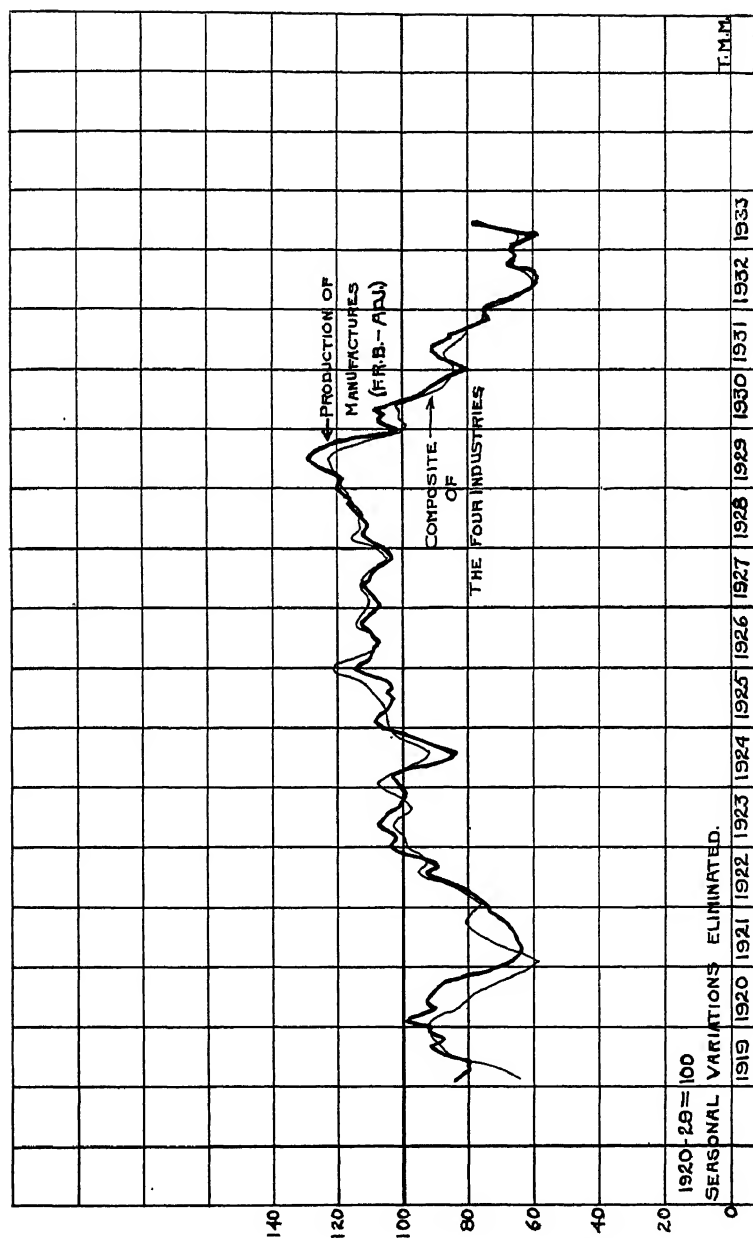


FIGURE 3

Statistics on sales or demand are very scarce and for that reason it becomes difficult to determine the fluctuations in sales activity in many industries. All accountants know, but from the evidence relatively few politicians and economists know, that the inventory on hand the first of the month, plus the production added to it during the month, less the inventory on hand at the end of the month must be equivalent to the sales during the month.

We have, fortunately, two important and concurrent indexes. One is the production of manufacturers, the course of which was shown in the prior chart. That index is computed by the Federal Reserve Board and probably subject to as great statistical refinement for the purpose of accuracy as any index in the country.

We have another index of stocks of manufactured goods. That index is computed by the Department of Commerce from totally independent data. In both cases the data are volumetric. If we put the index of manufacturing activity or production and the inventory or stock index through that inventory formula month by month, we get a most interesting picture as shown in Figure 4.

No question can be raised logically regarding the accuracy and secular trend because a single line in this general direction accurately reflects a median position for all three of those activities. We find when, to the inventory at the first of the month we add the production during the month, and from that subtract inventory at the end of the month, we get in sales such a faithful duplication of production activities, that it is necessary to double the vertical scale in order to show the deviations visually.

You may properly ask what there is to the problem of controlling production to meet demand. I do not see how it could be much more accurately controlled. The requirements of stockroom space and capital investment afford very close control from the standpoint of the economic whole.

To be sure, certain companies and industries temporarily may be guilty of accumulating surplus stocks, but when you stop to realize the usual high ratio between annual sales and normal inventories, you realize such an extended production cannot long continue.

Price

Of the topics originally outlined for this discussion, there remains the problem of price. How is a sound selling price to be determined and what is such a price? It may be roughly defined as that price at which attainable volume will yield a reasonable return on in-

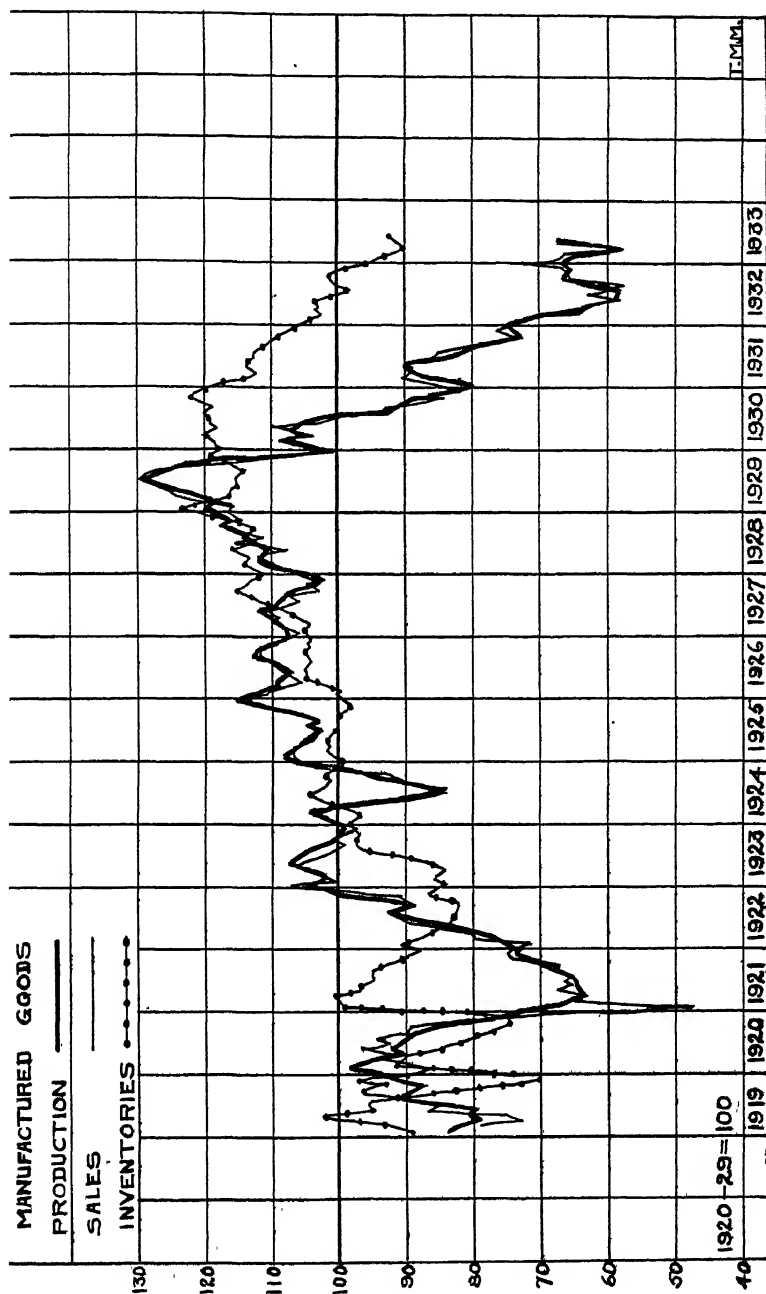


FIGURE 4

vested capital. But is sufficient volume attainable at a price that will yield a reasonable profit? No marketing plans can be made and no standards set that do not demand price determination. But it should be realized that no manufacturer and no industry is the final arbiter of its own price level. Prices are the resultant of forces too powerful for control by agreement or legislative enactment.

It will be interesting in this connection to refer to the all-commodity wholesale price trend over a long period of years. This is shown on Figure 5. This price index is that of the Department of Labor. It is based on the average of 1926 as 100% and displays average annual prices from 1798 to 1932 inclusive. Two points should be obvious at once. One is the existence of three enormous but very similar peaks and the other is that the 135-year trend shows no tendency for prices to increase. The three great peaks mark the War of 1812, the Civil War and the World War and are due entirely to conditions imposed by those wars. A similar peak occurred in 1780 as a result of the Revolutionary War. There is a striking resemblance in the long-term trends between these war peaks. Most of our time between these wars is spent in recovering from their price influences. In view of the price performance shown here in a span of years that virtually marks the life of the nation, is it not fair to ask, "What is a standard price?" Is it not apparent that these price swings are primarily the result of war conditions and are part of the cost of conflict?

The Goldsborough Bill which passed the House last summer aimed at the restoration of business volume by raising prices approximately to the level of 1926 by control of Federal Reserve Board credit. It is a common belief that the prices prevailing in the years between 1920 and 1930 can be accepted as normal. The fallacy of this thought should be apparent from this historical picture. The level of 1926 is thoroughly abnormal. There is, first of all, no indication of a long-term rise in prices. Furthermore, in the 135 years here portrayed, there were only 18 years or 13% at or higher than the 1926 level and these were confined to the war-time peaks.

The grand average for the entire span is 77 based on 1926 as 100. Only 52 years have shown prices higher than this average while 83 were below it. Thirty-eight years showed average prices lower than those of 1932. The problem of government is to quit fooling with the buzz saw, and of management and men is to face the facts and to develop sufficient agility to adjust themselves to those

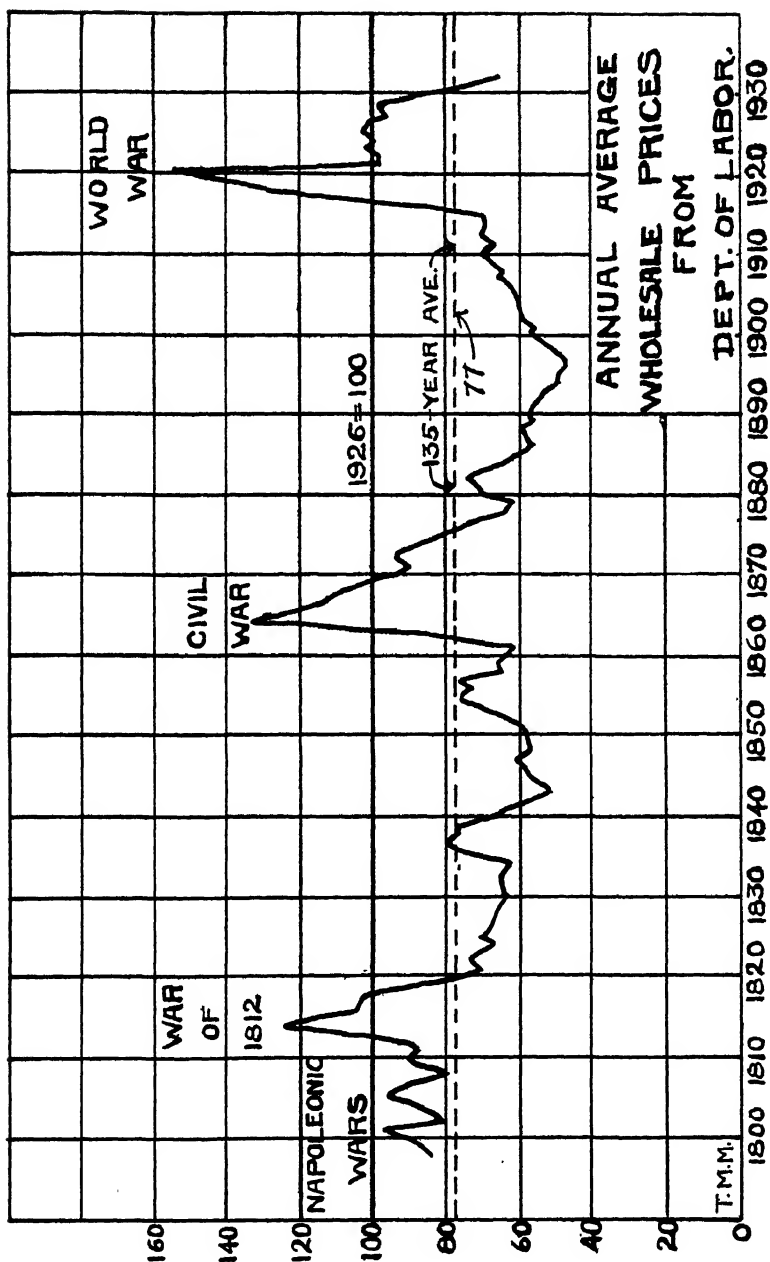


FIGURE 5

forces which they cannot control. If, in looking at these price peaks, we could realize that what goes up must come down, much grief would be saved the world. Relatively few executives in positions of responsibility today carried any such burdens before the last great price rise. In other words, most of their active responsibility has been confined to the latest era of high prices, which for this reason seems normal to them. Recognition should be accorded by government, management and people at large to the fact that the high price levels of the past decade are but a passing phase with accurate counterparts in the past if they would but realize it.

Much of the trouble in the present situation is induced by the enormous investment by government, business and individuals at abnormally high price levels during the past 10 or 15 years. Virtually all the criticism we hear of investment and debt on the part of individuals is based apparently on the conception of volumetric overpurchase. Certainly, those of us who are engaged in the business of accounting, in one phase or another, realize that the level of unit prices is just as important as the level of volume. The debts remain at high levels. Deflation and liquidation are painful. Government and people are looking for an easy way out. Our fathers and grandfathers had these same problems and apparently met them with more fortitude. These thoughts have a vital bearing on the subject under discussion. A better knowledge of the nature and significance of these price movements would enable all concerned with the investment of capital to avoid much of the trouble we now face. The war-time price peaks stand out like lighthouses, warning of the dangers ahead and yet we see not.

If the stimulus to expand our purchases and debt during these abnormally high price eras could be controlled, the peaks would not be so high nor the valleys so deep. Incidentally, the effect of legal price agreements will not be so beneficial as the advocates of such measures hope. We may freely agree not to run for the exits if fire breaks out in the theater but if fire occurs, look out for the crowd. Agreements to maintain prices can be effective only when internal conditions among competitors are comparable. If one of the competitors is long on inventories and short on cash, with creditors pressing him, he will undertake to realize on his inventories. The instinct for self-preservation is commanding and the organization cannot be expected to sacrifice itself for a price agreement.

This, too, has a bearing on the problem at hand, for price stand-

ards based on trade agreement will have an unstable foundation. Any legal enforcement of uniform price levels will mean the virtual extinction from time to time of those companies whose working capital position becomes unduly precarious. Planned operations through the development of standards of measurement will assist materially in reducing this risk. Prices, of necessity, are influenced strongly by supply and demand. Figure 2 gives a visual picture of the type of surging demand arising in various industries. Figure 5 gives a pictorial history of commodity prices that strongly suggests what may be expected to happen under certain conditions. An intelligent approach to the problems of price warrants the consideration of these trends.

We have attempted in this discussion to call attention to those underlying conditions which must be recognized if planned control of selling and distribution is to be successful. They apply indiscriminately to large and small business. Any differences between large and small companies in meeting these conditions are in magnitude rather than in nature. Standards, to be effective as an aid to management, must vary with those conditions which cannot be controlled. Only in this way can they measure those variations within the organization itself. This is the problem to be solved and the field is broad.

CHAIRMAN HOWELL: Gentlemen, I read in the little Convention News Bulletin this morning that the session was going to be meaty. I think this is the most substantial meat that we have served today. It is a thoroughly technical paper.

One of the gentlemen, in asking a question this morning, asked whether we should start with a check-up of our properties and our capacities. I think I told him we should start from the net profit budget, that is, the profit that we are actually thinking we are going to get, not the desired profit, and build back. You will find so many problems which will require specific study.

In this particular case, in getting into distribution problems, you can see that in a complicated problem of distribution you are going to get back into price charts, economic surges and a great variety of things which will be studies in themselves.

Before we open this meeting for discussion, I would like to ask that, in addition to questions, some of the members who have worked out methods and plans for setting standards for distribution get up and say a few words about them. There are a great number

of methods. All of us cannot possibly be trained to understand the economic background.

In other cases, we do not have to work our distribution problems out quite as extensively. I have in mind, for instance, that if you are one of the contributing industries, that is, if your production trails a few months after another big industry, you may be able to adjust yours on a basis set by the industries you are following, if you can get the records for that industry far enough ahead of time.

I have a great number of questions that Mr. McNiece's paper has aroused in me, and I am sure you fellows have. We will open the meeting for discussion. Do not forget also we would like to hear from the members who have worked out some plans of their own for the development of distribution standards.

Mr. McNiece, if you do not mind, I will ask a few questions on these charts. They seem to be history. They represent facts that have occurred and we know about them and we can now chart them. Of what use is that chart in 1933 in the prediction of what is going to happen in June, 1933, to December 31, 1934?

MR. McNIECE: Here we have coming up a most insistent demand for a reliable system of forecasting to which I referred in the paper. Time could not possibly permit intimate discussion of the characteristics found in these particular industries, not discussions as to the probable or possible underlying causes.

It may suffice, in making a relatively indirect answer to this question, to call attention to this: In a period far longer than covered by that chart in a critical examination of the building industry, which is the most important economic industry in the country, we find very strong indications of a long wave length with peaks predominating around eighteen to twenty years apart. Superimposed on top of that is a ripple, approximating three years in length.

Visualize, if you will, that sort of trend for the building industry. Confirming records from similar studies are beginning gradually to filter through. Our own studies have been made from 1900 to the present time. We recently found reference to one which covered a period from 1859 to 1929, and it shows the same general trends.

The textile industry, strange as it may seem, has shown a two-year oscillation without exception up to the present time. Its levels of activity have been relatively high in the odd calendar years and low in the even calendar years, beginning with 1919. Some of these data are not available beyond that because that is when the

Federal Reserve Board began the collection of its commercial and industrial statistics on which this study is based.

We have in the automotive industry a decided three-year surge. The automotive industry, from its origin through all the succeeding depressions of greater or less intensity, never suffered a decline in output from one year to the next until 1918. Then, forced entirely by external conditions induced by the war, it suffered a catastrophe, that is, a decline of 45% in output compared with that of the prior year. Every third year since that time, without fail, that decline has reoccurred.

It is thrown off schedule now by the depth and intensity of the present depression. Textiles are maintaining a two-year surge through this depression, though the general level of activity is somewhat lower. Foods are required as long as we live. Therefore, it is to be expected that we find a relatively stable trend in foodstuffs, and from the yearly standpoint, no volumetric change of unusual nature.

Getting back with that historic picture and applying it to the question in hand, we may say this: The closer an industry is to the level of elementary necessities, the less liable it is to be distorted volumetrically by economic conditions. The farther removed from the bare necessities of life, the more liable that industry is to violent disturbance. The longer the normal useful life of any commodity manufactured by any industry, whether it be a necessity or a luxury, the longer can deferment of replacement take place under stress of economic crises. Therefore, the longer recovery will be deferred in such an industry.

It comes down to this, then, in answering that question: Apparently one can count with reasonable assurance on certain levels of performance in those industries which may be classed as close to requirements of necessity. Certain types of industries manufacturing durable goods are subject to more or less periodic influences, such as those I have described with reference to textiles, building and automobiles.

Our problem in answering this question as to what we may expect in the near future is to make some sort of an intelligent classification or estimate of the near-term trend, based on characteristics of these industries as just described, keeping in mind both the timing and the degree of fluctuation above and below normal. Anyone serving the building or automotive industries must expect higher peaks and lower valleys than will be encountered in serving the

food industry, and the timing of these fluctuations may vary widely among the industries. In further answer to this question, we have been able to make a tentative classification of all industry, breaking it up into four groups.

This is all-important in answering this question. The first is that type which, by nature and use of its product, varies but slightly from normal levels even during serious crises such as the present. The best examples of that are staple foods and tobaccos, whose total volumetric levels have been disturbed very little.

The second class of industries is made up of those whose activity follows the trend of general business. That is, if you plot its activity, you would not get one of the widely variable trends, but you would get a trend that would approximate that of general business.

That can come about in two ways. Either that specific industry is serving so many industries that it gets a fair sample of the whole picture, or its product is such that it yields to variation in general income levels. Examples of that are shoes and carpets and rugs. Depressions in the shoe industry are shorter than depressions in the carpet and rug industry under conditions like the present, because we cannot so long defer replacement of shoes as we can of carpets and rugs.

The third class of industry is made up of those that develop characteristic fluctuations of their own, as textiles, automobiles and building, though the latter is harder to recognize.

The fourth class, and this includes most of the producer industries, is made up of a group which by nature of its product and use might automatically fall into some one of the three prior groups. However, actually, it is so strongly dominated by the industry it serves that it takes on the path of that industry.

An example of that is can making as it serves the food packing industry, in its highly seasonal fluctuations. Another example is machine tools. If the sales of machine tools be charted on an index basis, their peaks and valleys will be found to be coincident with the peaks and valleys of the automobile industry. That is, it follows the trend of its outstanding customer.

Therefore, the problem of how to apply this simply and practically in a short-term predetermination of trend is one of evaluating such facts as I have just described in terms of your own individual industry.

A. R. DAVIS (*Controller, American Hide and Leather Co., Boston, Mass.*): I should like to ask Mr. McNiece if, in the preparation

of Figure 4, he has the figures which would give the relation of sales and production to inventories, or an overall turnover figure.

MR. McNIECE: Presumably you mean the turnover, technically expressed. I have not tried to work that out accurately although some rough calculations have been made on a sales rather than cost of sales basis. One was based on a group of aggregate income tax returns. Another was derived from a statistical compilation on a large number of industries. The average results in both cases were between 4.5 and 5 times,—that is annual sales were between \$4.50 and \$5.00 for each dollar invested in inventory at the close of the year.

Recently, in doing some work, I found one of the very prominent food companies enjoys an inventory turnover of 16 times a year measured in this way. In some extreme cases it might be even less than twice a year and is certainly less than that under present conditions in the copper industry.

MR. DAVIS: This chart shows sales and production are almost exactly alike year after year. If that is the case, why does the inventory line vary so?

MR. McNIECE: In part, because of the turnover ratio which we have just been discussing. The rate of turnover has a direct bearing on the sensitivity or stability of these relative movements. If the inventory turnover is at the rate of 3 times a year, the normal inventory is equivalent to 4 months' production. If the turnover rate is 6 times a year, the normal inventory is equal to 2 months' production. Any given difference between quantities produced and sold would therefore have twice the relative effect in the latter case than it would in the former.

Another point to be considered is that the inventory represents the *accumulated* difference between quantity produced and quantity sold. Therefore, a relatively small *daily* or *weekly* difference between the two will soon make a considerable *accumulated* difference. There are often minor differences between output and sales. Their effect for the reasons mentioned is quickly shown in inventories. Normally in practice, adjustments are quickly made between production and sales when a change in trend of sales is once determined.

MR. DAVIS: The production line actually leads the sales line?

MR. McNIECE: Generally speaking, it does all the way through. The actual working sheet from which this large transcription was made shows that even more closely.

One point in connection with that question and this Industrial Recovery Act that should be considered seriously but to date has not been, is this: Assuming that we find fluctuations in demand that precede any change in income levels, any improvement in coordination between production levels and sales levels will mean a quicker dismissal of help from the payroll. It goes in reverse order just exactly as our present tax plans do. To promote stability of demand or sales and, therefore, of economic levels, luxury taxes should be imposed in peaks of prosperity and removed in the valleys of depression. The purchase of those commodities should be discouraged at the peaks and encouraged at the low points. But, for political reasons, we reverse the process to the distress of all of us.

H. A. GEORGE (*Accountant, United Engineers and Constructors, Inc., Philadelphia, Pa.*): I should like to ask why the decrease in the amount of inventory, shown in that chart, is so low for the year 1933 when the statement is made generally that inventories are very low at the present time. Why does that show such a small drop?

MR. McNIECE: That is a tremendous drop.

MR. GEORGE: Not in comparison to the production and sales.

MR. McNIECE: Yes, in relative terms, it is. The inventory turnover ratio must again be considered.

If sales increase and inventories remain the same, production has increased at exactly the same rate as sales and inventory turnover is increased.

If sales decrease and inventories remain the same, production has decreased at exactly the same rate as sales and inventory turnover is reduced.

If sales decrease and inventories also decrease, production is declining at a faster rate than sales but the turnover rate will still be decreasing unless inventories decline at the same relative rate as sales. In this latter case, inventory turnover rate will be constant. This latter condition has not been and cannot be realized in practice. Inventories cannot be reduced below normal as rapidly as sales any more than the number of employees can be or is so reduced. A certain minimum is required as long as any sales are made. As the complexity of an inventory increases through a growth in the number

of items or styles, the minimum total inventory increases. As long as a business is to remain in a "going condition," there is a limit to the "compressibility" of inventories. The behavior of these trends illustrates this condition and shows that the inventory turnover rate has materially declined with the serious decline in sales volume.

You will note that the decline below the trend is far greater at the present time than it was during the depression of 1920-21. As a matter of fact, if you compare these trends in that depression you will find that inventories in the depression of 1920-21 continued to decline for a full year after business started its recovery.

Those of you who at that time had, as I happened to have, some responsibility in watching the control of inventories would realize we went into that period with excessive stocks. We did not do that this time. It is interesting in following this close agreement between sales and production trend, to consider a statement that appeared in the public press two or three months ago.

One of the statistical agencies had conducted a questionnaire and they had more than 500 responses. The point at issue was whether production, in an effort to stimulate recovery on the part of these companies, was to be in excess of demand. Nearly all of the companies said they expected to produce only to meet demand. That is exactly what they are doing.

W. H. FISHER (*Cost Accountant, J. T. Lewis and Bros. Co., Philadelphia, Pa.*): Has the Department of Commerce chart of wholesale prices, that is Figure 5, been corrected for the purchasing value of the dollar in various times during the 135-year period?

MR. McNIECE: That has been adjusted by various agencies. That, by the way, is not the Department of Commerce, but the Department of Labor index and they also publish an index on cost of living. The National Industrial Conference Board has also done the same thing rather extensively.

MR. FISHER: It would be necessary in order to compare the peaks and valleys accurately.

MR. McNIECE: Yes, that is true.

CHAIRMAN HOWELL: Before we end the discussion on this question, we talked this morning about budgeting and the possibility of taking some simple initial steps. For the benefit of those of us who, during your talk, have dived overboard and gone down for the

second time, could you hold out a word of encouragement to those fellows who have to deal with the small industries and cannot, at least within a reasonable time, get such a broad view of this entire picture?

I have in mind a great number of industries that are coordinated with big industries. For instance, speaking of a personal experience, take the automatic sprinklers for fire protection. We do not really have to go into a tremendous number of general statistics if we can keep in mind the statistics on new building construction. We know that if that falls off the automatic sprinklers are gone, too.

Regarding the talk about peanut butter this morning, I should think peanut butter was more or less of a luxury and if wages fell off you might eat ordinary butter. I think one thing that would have to be brought out very carefully in the classification you were talking about is not to classify something as a foodstuff merely because it looks like food or because it looks like something else. There may be some gradations or sub-classifications. For instance, I suppose the sale of high-grade, surgically fitted shoes must have fallen off tremendously and all of us are probably buying a standard make for \$3. It is important to pick out the particular little niche in which your line fits.

I wonder if you feel, for the purpose of immediate budgeting for six months ahead or even a year ahead, some indices, some judgment, might be developed requiring not quite so comprehensive an economic study as you have presented.

MR. McNIECE: I should say most definitely, "Yes." The details to which I have gone this afternoon were not developed prior to or as a fundamental part of market estimates. They were developed subsequently in the effort to determine an explanation for some of these widely varying industries. It should be apparent to anyone who will stop calmly to think and temporarily wave aside his prejudices, that with a picture of highly variable individual industries such as is shown in those four predominating industries, which would take up 75% of consumer income in the United States, that is on a weighted income basis, taking in all income strata, certainly the highly individualistic performance could not exist unless there were differences or influences predominating within the industries themselves.

If we must blame the periodic appearance of sun spots for our recurring economic depressions, the peaks and valleys in the individual

industries should be coincident. Likewise, the peaks and valleys should be simultaneous if the controlling influences were in common financial and credit troubles. I am not depreciating in any way the part those latter elements play.

It is very simple to determine basic requirements for an industry. I was called upon at one time to make an estimate of what would be required to set up work of that kind, and it is remarkable what one man can do with one clerical assistant and one typist. You can wade right into all this information from the practical point of view with an amazing speed.

The first step is an analysis of your own sales, which should not be difficult to determine, and their relative importance by principal industries. If you sell to many industries, bunch the unimportant ones. Consider sales to predominating industries. If those predominating industries are highly fluctuating, 50% of your sales may give you the predominant trend. That is, the predominant load on your own plant. That is a shot in the dark. It might be true on less, and it might not be true until you take in more.

The essential thing is to work out those principal customer industries. Then you will find nearly every industry is covered by its own trade publications. The Federal government and the Federal Reserve Board also publish data on trade activity, the former both weekly and monthly and the latter, monthly. Properly chosen, you can get very reliable information, not only historical, but on the near future trend that is expected in that particular industry. From that make your own picture.

One man and a typist can do a great deal of work by themselves. It requires no large organization to put all that together. Research work is something else.

CHAIRMAN HOWELL: The next section of this program is on "Problems in the Development of Standards for a Small Business Selling to Consumers." The gentleman who will address us is C. Howard Knapp, a very familiar figure to us. He has addressed the National Convention before. I will read his "pedigree."

Mr. Knapp was graduated from the Melrose, Mass., High School in 1904. In March, 1909, he joined the Special Service Department of the Library Bureau, and later became a partner in Cutter, Fletcher & Company, Public Accountants. In 1912, he left the public accounting field and became accountant for Waitt & Bond, Inc., which organization he served until 1916, when he went with the

Bassett Company of Bridgeport, Conn. In the early part of 1918 he returned to Waitt & Bond, Inc., as Secretary. In 1929 he was made Treasurer and Director in charge of Finance, in addition to his secretarial duties.

At the present time he is Vice President and Controller of Waitt & Bond, Inc., Congress Cigar Company, and the Porto Rican American Tobacco Company, Newark, N. J. He is one of the gentlemen whose volumetric volume of business has not been affected by the depression.

Mr. Knapp was elected First Vice President of the Newark Chapter when it was organized in 1929, and reelected for the year 1929-30, and served as President for 1930-31. That accounts for his smiling face, because being presiding officer of a chapter certainly takes your mind off the depression. I am very proud to introduce the next speaker, Mr. C. Howard Knapp.

PROBLEMS IN THE DEVELOPMENT OF STANDARDS FOR A SMALL BUSINESS SELLING TO CONSUMERS

C. HOWARD KNAPP

Vice President and Controller,
Waitt & Bond, Inc., Newark, N. J.

I WANT to begin with somewhat of a confession. My original plan was to talk largely from notes, but I found that the exceedingly good fellowship of this Association is such that the time planned for coordinating the notes was spent in hours of dissipation. I can assure you that they were very much more pleasantly spent as they were, and I hope you will not have to suffer too much from my lack of character in being unable to say, "No."

Mr. McNiece and I planned to develop a bit of teamwork in connection with our two papers. His has been a general one covering the underlying principles involved with respect to the subject, that could be applied to any number of industries, whereas mine has been more of a detailed effort to show just how the different elements of distribution cost are applied in the one company.

I am sorry that the Chairman's remarks about the volumetric volume, or whatever it was, of our business has not been in line with what Mr. McNiece has told you. It is not that Mr. McNiece is wrong in his theories, but it emphasizes once more the trends that take place in an industry.

We make cigars which are termed more or less high-priced, selling at 10¢ each and two for a quarter. Whereas tobacco consumption has not been tremendously reduced, as Mr. McNiece has told you, unfortunately it is going to lower-priced products and we have suffered. I want to get that straight so I will not be flying under false colors.

You have noticed that the program of the technical subjects of this convention lists this particular effort of mine under the general title of "Standards and Their Application to Distribution" as they affect the "Problems of the Development of Standards for a Small Business Selling to Consumers." It was not until this paper was practically completed that the adjective "small" was included in the title. When the distribution expense application about to be described was first installed, Waitt & Bond was doing a business of from five to six million dollars per year—a relatively small business compared with many of our nation's industries, but substantial enough to be described more correctly as medium sized rather than small. In any event, we believe the principles to be outlined will apply to almost any business manufacturing and selling consumer products, regardless of size.

There has been distributed to those of you in attendance what might be called a chart, or memorandum, detailing the various classifications of distribution expense, and indicating, in "high spot" manner, Waitt & Bond's method of creating standards for each classification, how it is applied to the product and to the territory. Also, the results of a recent survey are shown, which indicate that kind of manufacturing business selling consumer products, having the highest and lowest percentage of sales dollar cost in the year 1931, for each of the classifications. It was thought that these notes might possibly facilitate a clearer understanding of the explanations to follow.

Since being assigned to the preparation of this paper, I have read a great many articles on the subject, and all of them begin with the same statement, viz., "The matter of distribution costs has been sadly neglected, whereas factory costs, etc., etc., etc." Inasmuch as I am to quote at some length from a report that is probably the most recent one on this subject, I reasoned out, perhaps as Will Rogers might—"Why should I spend my time trying to say in a different way that which everybody who has talked on this subject has already said?" I, therefore, quote from a report called, "An Analysis of the Distribution Costs of 312 Manufacturers," published by

the Association of National Advertisers, and feel that, to some degree, we have a certain right to borrow this quotation because the National Association of Cost Accountants participated in the compilation of the data making up the report, and, more particularly, because Waitt & Bond happens to be one of the contributing 312 manufacturers. The foreword on this very excellent 109-page report is as follows:

"For some years past intensive efforts have been put forth by manufacturing organizations in the United States to reduce costs. The greater part of these efforts has been directed toward the manufacturing or production end of business and real progress has been made in that direction.

"Distribution costs, on the other hand, have more recently come under the scrutiny of business management and, today, an increasing number of manufacturers are devoting careful thought and study to ways and means of lowering the cost of distribution. No greater need exists for manufacturers at the present time perhaps than a reduction in the cost of selling and distribution.

"With this thought in mind, the Association of National Advertisers has endeavored to assemble facts on the various costs of distribution of representative manufacturers in leading industries of the country. While numerous surveys have been made of selling and operating costs in both the wholesale and retail fields, relatively little information is available on manufacturers' distribution costs. This comprehensive study should therefore be of value to all those interested in the subject.

"Because the information desired was directly concerned with cost accounting, an invitation was extended to the National Association of Cost Accountants to participate.

"Members of the A. N. A. and all others who find this study of value are indebted to the National Association of Cost Accountants for its friendly spirit of cooperation and to each of the 312 manufacturers who have generously contributed reports on their costs of distribution."

When an association as important and powerful as the Association of National Advertisers, whose membership reads like the blue book of American industry, decides a study of distribution costs is a problem of such importance that it necessitates an analysis of the magnitude of their report, it is an indication that some of the subjects we discuss in our chapter meetings are interesting to others outside the field of accountancy, and furthermore, that the N. A. C. A. must be making a place for itself in the field of business research when we are invited to cooperate in the preparation of such valuable information.

Developments in Washington, during the past few months, are full of interest for those of us in the field of cost accounting. Col. Gaskill in his splendid talk to us yesterday afternoon indicated what is undoubtedly the most up-to-date knowledge on the Industrial Control Act. The Kiplinger Washington Letter of this week states:

"*Uniform cost accounting methods* within each trade and industry are emphasized by ALL officials as the key to the whole messy problem of price determination and price control. Trade associations are being advised quietly to rush their uniform cost work, so that each unit will use the same rules for finding cost."

If we are awake to our opportunities we will concentrate largely on a standardization of underlying methods for obtaining distribution costs, as there is very little uniformity of practice at present. The most important reason for computing costs is to supply management with all of the facts as an aid in meeting competition. The trade associations which will be formed will probably consider selling price making their most important function, as many of the ills of industry today may be laid at the door of unscientific price making. The "will-o'-the-wisp" in cost is Distribution Expense. Because it is such an exceedingly live topic, I am particularly pleased to have had the opportunity of presenting this paper.

Distribution cost is a most important factor in almost every type of business endeavor—whether retailer, jobber or manufacturer. The dollar used by the ultimate consumer in making his purchases is a totally different one from the one we manufacturers use in our computations. It is cut down to perhaps 75¢ when considered from the jobber's point of view, and perhaps 60¢ when reduced to the manufacturer's standpoint, or expressed inversely, the manufacturer's sales dollar becomes \$1.25 to the jobber and \$1.66⅔ to the retailer. These comparisons will, quite naturally, change with the nature of the business. In 1931, the distribution cost in the drugs and toilet articles manufacturing business was 38.8% of the net sales. Some of these products are sold to jobbers who sell to retailers, who in turn sell to the ultimate consumer. Assume a jobber's gross profit of 15%, out of which he has to pay all expenses of doing business and make a net profit, and assume a retailer's gross profit of 25%, out of which he has to pay all expenses and make a profit. Based on the distribution cost of 38.5%, if a manufacturer wishes a profit of 5% on net sales, a toilet article with a manufacturing cost of \$1 becomes a sales dollar of \$1.78 to the manufacturer, a sales dollar of approximately \$2.10 to the jobber, and a consumer sales dollar of \$2.80. Think of it—an increase from a manufacturing cost of \$1 to a purchase price by the consumer of \$2.80, and the manufacturer has made only a 5% net profit and the jobber and the retailer are having a difficult time to make both ends meet. Too high a cost for distributing the product, you say? Very probably, but the drug manufacturer's adver-

tising and salesmen's expense alone was 30% of his net sales in 1931, but if he didn't advertise his product, the consumer would not know of it, and the jobber would not carry it. There are two sides to every story. We will all surely admit that advertising has been a tremendous force in the growth of our national industries. It has trebled and quadrupled the sales in many instances, and by so doing, has greatly reduced manufacturing cost through greatly increased volume. Let us not forget, therefore, that, although the cost of distribution has greatly increased through larger advertising and promotional expense, there has been, until recently, a greatly reduced manufacturing overhead through increased production. The trouble has been that we have permitted ourselves all along the line to become geared up to a productive capacity that a depression cannot support. We come to distressing times such as we have been experiencing. The manufacturer feels that he should advertise as much as ever to get what business there is. He cuts his sales prices even more than his decreased cost of raw material will warrant, in order to prevent idle factory capacity. Jobbers begin to cut prices and throats in a wild attempt to get the other jobber's business. The large retailers reduce prices below a point which gives them a sufficient margin to cover store expenses in order to increase unit sales. The little retailer feels he has to meet the price or lose his business, and in too many cases he is in a position where he has no alternative but to lose his business, either to his cut-price competitor or in the bankruptcy courts. If distribution costs of manufacturer, jobber and retailer are so great that an article, the manufacturing cost of which is \$1, must sell to the consumer at \$2.80, why cannot a great deal of this cost be saved if the manufacturer sells directly to the consumer, or at least with the elimination of the jobber? In some instances this may be done, but many a manufacturer has tried it, and great indeed have been the resultant headaches. I would like to continue further along this avenue of thought, but have probably already digressed too far from my subject. The point I wish to bring out is that a better knowledge of distribution costs on the part of manufacturer, jobber and retailer would have curtailed many of the evils that have crowded the last few years of manufacturing and marketing.

There are varying ideas as to what constitutes distribution costs. Our own run very closely to those outlined by the Association of National Advertisers, but I am using theirs, as it is probably better to base my remarks on a classification pertinent to a large number of

industries. Thus, Distribution Costs are grouped in the following main classifications:

- I. Direct selling costs
- II. Advertising and sales promotion
- III. Transportation
- IV. Warehousing and storage
- V. Credit and collection expenses
- VI. Financial expenses
- VII. General administrative expenses.

It is intended that they constitute all of the expenses of the business that are not included in manufacturing costs.

Although we have used the sales dollar in our illustration of distribution costs, we do not wish to create the opinion that all classifications should be computed in this manner. Different bases are used in applying the cost of the various classifications to the product; some are more equitably applied on the net sales dollar, some on the weight of the product, some on a unit plan, and some on a purely arbitrary basis. Of course, conditions applying to one kind of business will necessarily be different in another, causing a different method of application. In addition to computing distribution standards and costs for the various products we manufacture, we also compute standards and costs of distribution expense against our various distributors and territories. For instance, we have a certain advertising cost per thousand for the Blackstone Londres, but in computing the advertising cost of the business done by our Philadelphia distributor, no consideration is paid to per thousand cost, but the cost of advertising in that sector is charged against the business of that sector. Later on, this feature will be discussed in greater detail. I have assumed that the reference to standards in this subject applies only to standard distribution costs, and will make no reference, for instance, to such standards as those which may be applied to salesmen's efforts. Our sales department keeps a close check on activities of the sales force and can tell pretty well as to what has constituted a fair day's work from a perusal of their daily reports, and work accomplished as indicated thereon.

In the creation of standards, it is necessary to work from a forecast of performance. In effecting factory standard costs, the element of production, whether based upon sales forecast or factory normal capacity, is used as the basis of computation. In computing standards for distribution costs, the sales forecast is the basis of the

DISTRIBUTION COSTS

ANALYSIS OF
ASS'N OF NATIONAL ADVERTISERS
Consumer Products
% of Net Sales—1931
Highest Lowest
Office Equip. & Sup. Tobacco Products
21.26% 3.23%

WAITT & BOND'S METHOD
Application to
Territorial
Costs

Applied in accordance with salesmen's time spent in each distributor's territory.

Creating of Standard
and
Application to Product

Forecasted Total Direct Selling Costs divided by Forecasted Net Sales dollars, resulting in a percentage to be applied to the net sales value of each type of cigar to obtain standard cost per M.

Applied in accordance with expenditure in each customer's territory, radio maps indicating territory benefited through each station's coverage, used as basis of allocating radio costs.

Specific brand and shape expenditures made directly to brand and shape benefited. General advertising assessed arbitrarily to various brands and shapes, based upon such factors as frequency of insertion in copy, brand name, etc. The total cost of this classification, when allocated to various brands, divided by forecasted sales of each, and a standard cost per M cigars obtained for each brand and shape.

Classification

I. DIRECT SELLING COSTS:

- (a) Salesmen's Salaries, bonuses and commissions,
- (b) Travelling expenses, including salesmen's auto expenses,
- (c) Sales office expenses, including office salaries in sales departments, office supplies, telephone, telegraph, rent, postage and other items, and like expenses for related sales service, sales adjustment or installation departments,
- (d) All other direct selling costs.

II. ADVERTISING & SALES PROMOTION:

- (a) Total expenditures in all recognized advertising media, such as general business, class articles, natural trade and industrial publications, radio broadcasting, direct mail, outdoor advertising, car cards, window displays, dealer helps and advertising production costs (art work, engravings, etc.).
- (b) Salaries and office expenses of *indirect* selling or sales promotion departments, such as advertising department, market analysis department, educational, publicity or market development forces, including any proration of administration expense to advertising and indirect selling costs.

Drugs & Toilet Articles 18.36%
Agricultural Prod. 1.58%

ANALYSIS OF
ASSN OF NATIONAL ADVERTISERS
Consumer Products
% of Net Sales—1931
Highest Lowest

WAITT & BOND'S METHOD
Application to
Territorial
Costs
Creating of Standard
and
Application to Product

- (c) Classification
Samples (including cost of
distributing).

III. TRANSPORTATION:
Out-freight, cartage and
express (paid or allowed);
long distance trucking
(own trucks); local deliv-
ery; in-freight paid on re-
turned sales.

Shipping Room labor and supplies
included in this classification.
Blackstone Londres, packed 50
cigars in box selected as standard,
or 100% article; all other packages
of Londres and other shapes in-
cluded by percentage that weight
bears to weight of standard package.
Annual sales forecast converted to
basis of standard package units and
total divided into Transportation
Expense forecast to get standard
cost per M for standard package.
Standard cost per M for shapes and
packages other than standard pack-
age obtained by applying their re-
spective percentage weights against
standard cost per M of the standard
package.

IV. WAREHOUSING & STORAGE:
Total warehousing, stor-
age and handling expenses
on finished goods property
chargeable to distribution.

Waitt & Bond does not have this
classification.

V. CREDIT & COLLECTION
EXPENSES:
(a) Expenses of maintaining
collection department, fe-
cal fees, credit service.
(b) Losses from bad debts.

Forecasted Annual Expense divided
by forecasted annual net sales dol-
lars resulting in a percentage to be
applied to the net sales value of each
type of cigar to get standard cost
per M.

Actual annual expense divided by
actual annual net sales dollars, re-
sulting in a percentage to be applied
to the net sales value of each type of
cigar to get actual cost per M.
Applied as a cost to each type cigar
sold distributor in working out net
profit for each brand sold each dis-
tributor.

Grocery Products
5.19%

Jewelry & Silverware
.31%

Petroleum Products
4.29%

Tobacco Products
.34%

Jewelry & Silverware
3.51%

Household Appliances
.63%

VI. FINANCIAL EXPENSES:

This classification is a credit item with Waitt & Bond, because of interest credit created through charging manufacturing costs with interest on Raw Material Investment and investment in Manufacturing Equipment. Total distribution expense is not reduced by this credit, but due consideration is given to it in planning desired profit percentage.

VII. GENERAL ADMINISTRATIVE
EXPENSES:

Same as classification No. 5.

computation. Certain exceptions might be made to this statement during periods of great depression, and we will comment upon this point further along in this discussion. As we believe it was not intended that the method of obtaining sales forecasts was to be part of this paper, we will not touch upon it, but will assume that satisfactory figures have been given us, determining sales expectancy for the twelve-month period just ahead. We will take each item of distribution costs and endeavor to indicate as to how Waitt & Bond establishes its standard cost and its actual cost, both as to the product and the customer. The allocation of costs to the various distributors is not tied in to the accounting records, but of course, the totals of all items recorded on distributors' records must agree with the accounting totals, so that a listing of net profits on the statistical accounts of our various customers must agree with the net profits as indicated on the statement of earnings. In addition, we will comment on the various types of distribution costs as shown in the report of the Association of National Advertisers just referred to.

CLASSIFICATION OF DISTRIBUTION COSTS

I. Direct Selling Costs:

- (a) Salesmen's salaries, bonuses and commissions
- (b) Travelling expenses, including salesmen's auto expenses
- (c) Sales office expenses, including office salaries in sales departments, office supplies, telephone, telegraph, rent, postage and other items, and like expenses for related sales service, sales adjustment or installation departments
- (d) All other direct selling costs.

A great deal of difficulty is encountered in formulating the most equitable plan of applying to the product the various expenses coming under this classification. Obviously, the ideal way is to base the application of expense on the effort exerted on the different items or groups of items in the line. In some businesses it is possible, through a study of salesmen's reports, to reach a basis for equitable application. In our own instance, we believe the net sales dollar the most desirable basis for cost computation of direct selling costs. There is more sales resistance to the two-for-a-quarter cigar than there is to the 5¢ cigar, and as our salesmen usually have to work harder and longer to sell a thousand of the higher priced product, it is only fair that it should be assessed at a higher figure. As nearly as we can

estimate, the difference in selling price is a fair measure of the difference in selling effort.

The forecasted net sales dollars for the year is divided into the forecasted direct selling costs, obtaining thereby, quite obviously, a cost per net sales dollar, which we establish as standard for classification I, applying the same to the net sales value of each type of cigar to obtain the standard cost per thousand. As history develops, the actual monthly cost per net sales dollar is computed and compared with the standard. This is done cumulatively throughout the year.

The seasonal feature of business will create apparent variations between standard cost and actual cost, as the direct selling costs usually remain about the same monthly, regardless of whether the month might be a seasonally good one or a seasonally bad one. The true comparison of the actual with the standard would be more fairly indicated if, for statistical purposes, the forecasted sales expense for the year is assessed to the various months on a basis comparable with the forecasted monthly sales. For instance, if January is forecasted as a sales expectancy of only 5% of the annual forecast, to get a true comparison of direct selling cost for the month, only 5% of the annual selling cost forecast would be assessed to January for the purpose of figuring the actual cost of this classification for the month. This would be done only for statistical purposes, as we believe the accounting for direct selling costs should cover the expenditure of the month, whatever it may have been. Our salesmen indulge in what is called in our business "missionary work." They do not take orders to be sent directly to the house, but work with the salesmen of our various distributors, the orders going to the distributor. A careful record is kept of the time spent in the territory of each distributor by our different salesmen during the year, and their salaries, travelling and automobile expenses, are allocated to our various customers' accounts, based upon the number of days spent with them.

On the analysis of the National Advertisers, covering 19 different groups of businesses selling consumer products, the range in direct selling cost was from 21.26% of the net sales dollar in the office equipment and supply business, to 3.23% in the tobacco products business. It is interesting to consider the probable reason for this; those of you who are selling office equipment know how much time is necessary to effect a sale, whereas, in the tobacco industry, the salesman of the manufacturer is usually following up the jobber's salesmen to make sure that the goods of his own house are properly

promoted, and his expense, therefore, becomes a smaller proportion of the total business accomplished.

II. Advertising and Sales Promotion:

- (a) Total expenditures in all recognized advertising media, such as general magazines, newspapers, business, class, agricultural, trade and industrial publications, radio broadcasting, direct mail, outdoor advertising, car cards, window displays, dealer helps, and advertising production costs (art work, engravings, etc.)
- (b) Salaries and office expenses of *indirect* selling or sales promotion departments, such as advertising department, market analysis department, educational, publicity or market development forces, including any proration of administration expense to advertising and indirect selling costs.
- (c) Samples (including cost of distributing).

The proper application of advertising to the various products, or groups of products, in many instances necessitates a more arbitrary method than any other item in distribution costs. The basis for including advertising cost in the product may vary materially, dependent upon the nature of the business and the policy of management in recognizing this cost. We stand firmly against any deferment of advertising cost against sales of a subsequent year unless there are most unusual circumstances connected with it. Advertising should be charged to the specific article advertised whenever possible, but in many instances advertising copy will cover a great variety of products, and yet, certain products will gain greater advantage from the publicity than others. In our case, for instance, we have arbitrarily applied that part of the advertising which is not specific on the following basis:

10% is charged to all brands for use of the firm name in advertising, as a certain cigar may not be mentioned, but as it is known as our product, it receives value from firm name advertising.

30% is charged to all shapes of the Blackstone brand; the Junior shape, for example, is almost never specifically mentioned, but it bears the Blackstone prefix, which is always mentioned.

The balance is charged to those shapes of the Blackstone brand that are mentioned and illustrated in the copy.

In this manner the entire advertising appropriation for the year is charged to the different brands and shapes, the respective amounts being divided by the forecasted sales of each shape, and a standard assessment charge per thousand is derived, which, although arbitrarily obtained, we believe to be fair and equitable. The standard charge per unit, when applied to the forecasted sales, will total the forecasted advertising appropriation for the year. Experience has proven to our satisfaction that an advertising appropriation is much more likely to be successfully forecasted than are the sales, and, therefore, we charge distribution costs each month with the total resulting from the multiplication of the *forecasted sales* (instead of the actual) by the respective unit assessment charges. The *actual* cost of advertising per product unit will vary monthly, depending upon how actual sales compare with forecasted sales. We obtain actual monthly advertising cost of the product as indicated by the following example: Let us say that the advertising assessment charge for the month, based on forecasted sales, was \$60,000, whereas, the same assessment charge per unit, when multiplied by actual sales, came to \$48,000. If we have made no change in our advertising appropriation during the year, \$60,000 is the correct amount to be charged for advertising for the month, but on account of sales falling down from expectancy, there has been an actual increased cost per unit which would not have been the case had actual sales come up to the forecasted figure. Advertising appropriation earned was only 80% of the correct monthly charge; therefore, if the assessment per unit was \$6 per thousand, this amount is only 80% of what was the actual cost per thousand, which, in this illustration, would be \$7.50. This difference of \$1.50 amounts to a variation loss on standard of advertising expense and is shown as such on the statistical data.

At the present time almost all of our advertising appropriation goes into radio, and the change to this type of advertising has brought a new problem with respect to the method of assessing the advertising cost to the various territories. Our advertising agency provides us with a map, the results of various surveys indicating the coverage of the different stations carrying our program. The entertainment cost is prorated against the station charges and the full radio cost allocated as an expense against our various customers, in accordance with the benefit the survey maps indicate they have received. Any direct advertising material issued is likewise recorded as an expense against the customer in whose territory it is distributed, so that at the end of the year the entire advertising expendi-

ture has been allocated to our different customers. The expense of samples used is designated as to the distributor using same.

The National Advertisers' analysis shows a range on advertising and sales promotion expenditure of 18.36% in the drugs and toilet articles industry to 1.58% in the agricultural equipment industry, and once more, it is easy to see why the former spends a great deal more of its sales dollar in this form of distribution expense than does the manufacturer of farm equipment. The tobacco products group is second in the list of the 19 groups, spending 8.23% of their net sales on this form of distribution expense.

III. Transportation:

Out-freight, cartage and express; long distance trucking; local delivery; in-freight paid on returned sales.

In the case of Waitt & Bond we include the cost of shipping room labor and supplies under the classification of Transportation Expense. These items are very much more definitely related to the weight of the product than to the net sales price. Our method of computing transportation costs is a great deal more simple than it may sound; the weight of one thousand cigars of each brand and shape, packed in the various sized packages in which they sell, has been recorded, and Blackstone Londres, packed 50 cigars in a box, considered as the standard or 100% package. All other packages of Londres and other shapes are indicated by the percentage that their weight bears to the weight of the standard package. At the end of the month, sales are converted to a basis of the standard package. As an illustration, the standard package weighs 29 pounds per thousand cigars; the Blackstone Londres, five cigars in a pack, weighs 35.4 pounds, or 122% of the standard, and the Blackstone Midget, 50 cigars in a box, weighs 18½ pounds, or 64% of the standard. The same cigar will, of course, weigh differently when packed in a different type of package.

Monthly sales of 1,000,000 of each package would be totaled as 1,000,000 for the standard, 1,220,000 for the 122% package and 640,000 for the 64% package. As there are less than 50 different packages it is a matter of not more than 15 minutes' time, once a month, to make the conversion to the standard package, and determine the cost per thousand standard package cigars of all the selling expense items that are to be distributed on a weight basis. In one month the cost of the standard package was 52¢, thereby resulting in a cost of 63.4¢ per thousand for the 122% package and 33.3¢

for the 64% package. There cannot be the slightest question as to the equity of distributing the items just referred to on a weight basis rather than on a sales dollar basis, and the extra effort involved is negligible. We are not unmindful of the fact, however, that in most industries here represented, the great diversity of products sold would entail considerable effort. Nevertheless, we believe that in nearly all instances certain groupings could be effected that would make the plan practical. In computing factory burden cost, all of the elements are analyzed and applied to the product in an equitable manner. Why should we be less scientific in our application of distribution cost?

On our distributors' cost records, a charge is made for the actual cost of transportation, so that there will be shown on the cost records of our Denver distributor's account, a very much higher charge for transportation on 10,000 Blackstone cigars going to him, than would be the case with the same quantity of cigars going to our Philadelphia distributor. In this way, a truer picture is portrayed as to the net profit developing from the accounts of our various customers.

On the National Advertisers' analysis, transportation costs were greatest with the manufacturers of grocery products, being 5.19% of net sales, and lowest with jewelry and silverware manufacturers, in which instance the percentage was .31%. This difference is quite obviously due to the comparison of the weight of the product with its average sales price.

IV. Warehousing and Storage:

Total warehousing, storage and handling expenses on finished goods properly chargeable to distribution.

We do not have this classification in our accounting, as the nature of our marketing is such that our distributors carry whatever supply is necessary in each territory. Certain it is, however, that warehousing should not be applied to the product on the basis of net sales, as in nearly all instances there would be no relation between the bulk of the various products and their selling prices. If the product warehoused is all of the same form, the one most frequently handled should be called the standard, or 100% product, and all the others indicated by various percentages to denote a greater or lesser difficulty or expense in storing and handling. If the products warehoused are not of the same form, certain groupings should be equitably established, and the same plan followed. All products would

be converted to the basis of the standard product, and the monthly warehousing cost obtained in the same manner as just described for transportation expense.

The National Advertisers' analysis shows the petroleum products industry to have the highest warehousing and storage cost—4.29% of net sales, and the tobacco products the lowest, with .34%, and we believe the reasons are too obvious to deserve comment.

V. Credit and Collection Expenses:

- (a) Expenses of maintaining collection department, legal fees, and credit service
- (b) Losses from bad debts.

The standard for this classification is obtained by the division of forecasted net sales into the forecasted credit and collection expense. The resulting percentage is applied to the net sales value of each type of cigar to get standard cost per thousand. It will be just as satisfactory to disregard forecasted sales and expenses of this classification, and use as standard the percentage that the *actual* expense bore to the *actual* net sales as, under anything like normal circumstances, the forecast of this type of expense would be based on the history of the year just ended. In the case of a company manufacturing a varied line of product, one class of goods going to a type of trade from which it is much more difficult to collect, it would be more equitable to indicate losses from bad debts by class of product, but once having done so, the bad debt cost of group "A" would be applied to the cost of the group "A" line on the net sales dollar. It may seem strange to some to see losses from bad debts accounted for in costing the product, but it must be remembered that distribution costs are being recognized more and more as a term to cover every expense pertinent to the business after manufacturing cost up to, but not including, federal taxes and dividends. Certain it is, that in computing the total cost of a product, recognition should be given to the fact that certain losses from bad debts will occur. Whether the anticipated loss is deducted from net sales, or included in distribution costs, is immaterial, but we believe there will be more surety of recognition, if treated in the latter manner.

The National Advertiser's survey shows jewelry and silverware manufacturers to be the greatest sufferers from credit and collection expense, with 3.51% of net sales, whereas manufacturers of household appliances have the lowest cost—.63%. The reasons undoubtedly are that jewelry is a luxury, sold usually on credit, whereas

household appliances are sold often for cash, and the credit loss is minimized by reason of sales being largely through utility companies supplying current.

VI. Financial Expenses

This classification on the National Advertisers' survey had included with it the item of cash discounts on sales. We believe it is very much better to consider cash discounts allowed customers as a deduction from sales before arriving at net sales, as a cash discount of 2% for payment in either 10 or 30 days is paying such a high rate for money that it obviously becomes an additional trade discount, contingent upon payment in accordance with terms. Other financial expenses might be the cost of the treasurer's department, expenses with respect to stock certificates and bonds, and their listing, registration and transfer fees, and interest costs. The application of this classification to the product in most instances is most equitably applied to the product on the basis of the net sales price. Where interest constitutes the major part of the expense, the manufacturing cost is more equitable as a vehicle than the net sales price, as the money has been borrowed primarily for material purchases and payroll expenditures, but the chances are that there would be only an infinitesimal difference in the cost whether it was applied on the manufacturing cost or the net sales price. Application of financial expense on the basis of the unit of production, however, would be grossly incorrect in most instances, as a thousand Blackstone cigars selling for \$95 have cost infinitely more for interest than a thousand Totem cigars, selling for \$38.50. In the case of Waitt & Bond, interest on investment in manufacturing equipment is charged to burden departmentally, and interest on raw materials computed as a separate element of manufacturing cost. The offsetting credit for these two entries is made to the interest account, which is charged with interest on borrowed money. In our case, the interest account becomes quite a substantial credit item. We do not reduce our total distribution cost by the interest credit, but due consideration is given to it in planning the desired profit percentage. For purposes of Federal tax return, the item of interest on investment is eliminated both in cost of manufacturing and in the P. & L. interest credit. In listing current assets, that portion of inventory consisting of interest on investment is taken out and shown with deferred charges. No equitable cost of manufacturing can be computed, however, in our instance, without recognizing interest on investment as an element

of cost, as raw materials used in some of our brands are owned for two or three years, whereas, due to special buying arrangements, raw materials used in other shapes may be owned for only four or five months, the leaf dealer assuming the carrying charges in such instances, although it is included in the price to us when billed. If one type of tobacco costs \$1 per pound and is not ready for use until two years have elapsed, it has cost, with interest at 6%, approximately \$1.12 per pound in manufacturing, whereas a tobacco ready for use at time of purchase will be less expensive even though the price paid for the raw material be \$1.10 per pound as against a dollar in the first instance. As these conditions are facts, and costs are supposed to deal with facts, and should be tied up to the accounting, there is only one correct way for us to handle the problem.

VII. General Administrative Expenses

Various elements of administrative expense should, undoubtedly, be applied on different bases. In many instances, the cost of order taking, billing, accounts receivable ledger work, etc., should follow the number of orders rather than the sales dollar of the order. Some elements of administrative expense, and miscellaneous income charges and credits, may best be applied on the net sales dollar, which we believe is the way such items, in their entirety, are usually applied.

In our case general administrative expense is applied on the net sales dollar, because we believe it to be the most equitable when considered from the standpoint of practicability. As we deal almost entirely with large jobbers and sole distributors, the orders are nearly all large ones, and so few clerks are needed for order writing, billing, posting, etc., that a more minute allocation of this expense is deemed inadvisable.

Referring for the last time to the National Advertisers' survey, we find that in the year 1931, of the 19 groups manufacturing consumer products, distribution costs averaged 26.83% of the net sales dollar with a range from 38.80% in the drug and toilet article business, to 16.54% in the radio equipment and supply field, whereas, of the 10 groups manufacturing industrial products, distribution costs averaged 20.64% of the net sales dollar, with a range from 25.83% in the machinery and machine tools business, to 9.15% in the textiles business. It is not surprising to know that distribution costs are greater in the consumer field, but it is interesting to see the comparisons.

In Waitt & Bond's case, manufacturing overhead is applied on the basis of normal factory capacity instead of forecasted production. The manufacturing account is charged each month only with that portion of fixed burden which actual direct labor has earned, the unearned portion being charged to profit and loss as due to idle capacity. Obviously, such an item must not be lost sight of in obtaining the final cost of a product, and it is equally true that it should not be included as one of the items of distribution cost. We believe idle capacity to be such an important factor that we compute it as a separate element of cost, thereby making for greater elasticity in obtaining all the information necessary to establish the selling price of a product. As idle capacity is not a part of distribution cost, we will not attempt to describe our method of applying it to the cost of the product, but to those who may be interested, I refer you to N. A. C. A. Bulletin, Vol. 14, No. 12, published February 15, this year, which describes the method.

When business is in the depressed state that we have experienced for several years, even the most accurate of cost computations and sales forecasting should not be relied upon too implicitly for the purpose of establishing selling prices. The costs of the various products of the United States Steel Corporation, when its plants are operating at, say, 20% of normal capacity, must be so excessive that very little of the available business could be secured if selling prices were based on such costs. The advertising and sales promotional expense of an article reliant on publicity for its consumption and use might very conceivably be so great during such times that any attempt to establish a sales price based upon a costing which included these full advertising and promotional expenses, would result in a price far greater than the traffic would bear. In such a case, should the manufacturer eliminate his advertising as something he cannot afford to do and thereby have a sales price that has a chance of getting some business, or should he continue publicity work that results in a final cost that will be in excess of his sales price? I believe that in such a case the far-sighted business man will continue at least the minimum amount of marketing expense that he believes his product must have, regardless of the effect of a decreased sales volume on the marketing expense per unit. I believe that the experiences we have been through will result in a realization of the necessity for creating a reserve, set aside out of the earnings of profitable years, so that a broad business policy may be maintained even when we are in the valleys of the business curve. It would seem, there-

fore, that a well organized business will have not only its factory idle capacity to consider, but also its idle selling effort, during that period when many of its customers do not have the money to buy, but should be constantly reminded of the product so that they will buy when the cash rolls in again. As an example, a manufacturer of automobiles may properly consider that a million dollars is the minimum advertising appropriation to use if the public is to be kept conscious of the name of his car. Under normal times this manufacturer may be spending \$3,000,000 for advertising and selling 30,000 cars per year at an advertising expense cost of \$100 a car. Let us assume that a depression causes sales to decrease to 2,000 cars a year, and that, in recognition of conditions, the advertising appropriation has been decreased to the minimum of \$1,000,000. Forecasting on this basis would result in an advertising cost of \$500 per car, which might very easily be a prohibitive figure as it would necessitate a sales price that would preclude his selling even the 2,000 cars. Should he then limit his publicity to a figure very much less than the minimum in order to have a sales price in excess of his cost? We believe he should *not*, as it would very probably become a vicious circle which would once more bring expected sales down below the 2,000 estimate because of insufficient publicity. In such a dilemma we believe a desirable cost procedure would be to establish an arbitrary advertising cost per car of, let us say for illustration, \$100 per car, which would be in line with normal advertising cost under normal conditions, and the amount by which the actual advertising expenditure of \$1,000,000 exceeds advertising applied to 2,000 cars at \$100 per car or \$200,000, viz., \$800,000, would be charged directly to profit and loss as "Depression Excess Selling Costs," or some such appropriate title. For statistical purposes it would be possible to figure this excess cost against the product so that actual costs would be a matter of record. The point we wish to drive home is that *costs*, to be useful, must be computed in a manner that will be of assistance in establishing selling prices. Costs figured on the basis of a production, using only 20% of plant capacity for covering full publicity costs, during a period when sales expectancy is at a low level, may be splendid from the standpoint of statistical information, but are of little value to management in planning and devising ways and means for acquiring all the business obtainable. The businesses that will weather these times to best advantage are those that have had sufficient foresight in the past to keep substantial surpluses in

their business so that charges to profit and loss covering idle capacity and excess promotional costs will not wreck their financial position. They will be permitted to get whatever business is obtainable because their prices will not be out of line with prevailing conditions.

In this paper, I have attempted to describe the exact methods used by Waitt & Bond, in applying the various elements of distribution cost to the product and to the statistical records, denoting the profit and loss history with our various customers. If there have been any ideas presented that will enable any of you to improve your present methods or increase your fund of knowledge on the subject, I will feel that the time spent in preparing it has been well worth while, and in any event, I am deeply grateful for the privilege of appearing before you.

CHAIRMAN HOWELL: It has been a very great privilege to listen to such a practical working paper showing what can be done along these lines.

We have just a few moments for discussion. Are there any questions?

MR. MERWIN: May I get up again and ask a question? In the candy end of our business we have followed curves and, of course, we find it following mostly the curve of the automobile industry, in other words, the luxury curve. We also found by tracing trends that the 5¢ item in the candy industry is decreasing in proportion to the penny item. The penny item is going up in this period of depression.

We traced all that, and we are trying now to make a forecast for the remainder of the year. In industries which are large and distributed throughout the entire United States, such as Schrafft's, and so on, their sales probably vary with the general trend.

To give an illustration, last year, while the candy industry was going down to about 30% under the year before, our sales increased because one item which happened to hit the trade, a specialty item, came out. This was a summer item which was introduced in April. At the beginning of the year we had a conference and were trying to forecast our sales.

The sales manager, with the salesmen at that conference, thought our sales would increase over last year. The general manager and I, seeing the trend of business, forecast that our sales would be down. Now we are trying to forecast our sales for the balance of

this year. Of course, our selling price will be based somewhat on our forecast of sales.

What I want to ask is, do you advise concerns in our position where novelties do make such a difference in our sales volume, irrespective of trends in the industry, taking the salesmen's expectations as the basis for forming our forecasts, should we stick to the office estimate, or what method should we take as the means of figuring our costs for the balance of the year?

MR. McNIECE: The only suggestion that I can make in connection with that question is to fall back on what I know has been the procedure in similar cases in totally different industries where it habitually is the custom to secure an estimate of future sales from the field and to make up a totally independent one in the office.

Where those estimates come into agreement, devote relatively little further discussion to them, but where they are in disagreement, sit down with all the known information to determine (and this need not be a long job) whether the salesmen's extra information which is not available to the office, or the information of the officers that is not available to the salesmen, seems to predominate in making the future trend, and on that basis establish a modification.

I think it would be extremely dangerous to attempt to adopt a rule that you should either accept the salesmen's estimate or your own inside estimate.

CHAIRMAN HOWELL: The only thing I can add is that in the paper we had this morning, in the sales estimate there were eight different forecasts mentioned, some from the field, some from statistical information, some from comparisons of statistical records. There were eight sources of information which were used.

I believe after all that information has been put together that probably the budget director can put a couple of stars over the ones he recommends, but I am not advocating at this time that the budget director should be the man who makes the important decisions as to what the guess is going to be. He can present all those facts to whoever is in charge.

As an alternative, if there is a tremendous discrepancy and you have irreconcilable differences, I think I would make up two budgets and say, "If you hit this, that is what will happen, and if you hit this, this is what will happen."

The purpose is not to get a budget so close to actual that at the end of a few months you can get up a nicely printed report and say, "Look how good we were." That is not the purpose of budgeting. I do not care at all how different the budget is from the actual as long as I know why it is different and have had some hand in causing it to happen.

Before turning the meeting back to the President, I want to express my appreciation of the honor of being Chairman and my thanks to the three gentlemen who have addressed you today. Also, I wish to thank the audience who have been kind and attentive and responsive in giving us a fine discussion period which is the meat of all N. A. C. A. meetings, whether they are Annual Conventions or local chapter meetings. That is where we get real ideas. Thank you very much. I will turn the meeting back to President Bullis.

PRESIDENT BULLIS: Ladies and Gentlemen, this meeting of the N. A. C. A. brotherhood and fellowship of friends is drawing to a close. Let us go forth to our homes filled with the positive qualities of faith and confidence and willingness to serve.

There never has been a time in the history of the Association when its members could be of more value and greater service to themselves and the country than at the present time. Today all of us, whether we serve industry directly or the government, are partners marching down the one-way street to more prosperous times and to greater happiness.

The call is forward with all eyes on new fields and fresh points of view. We march onward with confidence and courage, spoken of by Kipling:

"And they asked me how I did it,
And I gave them the Scripture text,
'You keep your light so shining
A little in front of the next.'
They copied all they could follow,
But they couldn't copy my mind.
Then I left 'em, sweating and stealing,
A year and a half behind."

There being no further business, I declare this International Cost Conference closed. Good night, and God bless you.

. . . The meeting adjourned at four-fifteen o'clock. . . .

